

# U.S. MARINE CORPS TECHNICAL MANUAL

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## LIFE CYCLE LOGISTICS SUPPORT AND THE MATERIEL FIELDING PROCESS



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1. This Technical Manual (TM), authenticated for Marine Corps use and effective upon receipt, establishes procedures as required by Marine Corps Order 4105.4 for the management of Life Cycle Logistics and the Materiel Fielding Process in support of Marine Corps Acquisition Programs (AP).

2. Submit notice of discrepancies or suggested changes on NAVMC 10772 to: Commander, Attn: Code 850, Marine Corps Logistics Bases, 814 Radford Blvd, Albany, Georgia 31704-1128. In addition, forward an information copy to the Project Officer at the following address: Commander, Attn: PSL, MARCORSYSCOM, 2033 Barnett Ave, Suite 315, Quantico, Virginia 22134-5010 or via the following Internet address: LOGC@QUANTICO.USMC.MIL.

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# CHAPTER 1

## INTRODUCTION

**1.0 Purpose.** This Manual establishes procedures as required by Marine Corps Order (MCO) 4105.4 for the management of Life Cycle Logistics and the Materiel Fielding Process in support of Marine Corps Acquisition Programs (AP). The responsibilities, processes and activities described in the manual apply to all Marine Corps ground acquisition programs and/or projects including weapon systems, tactical and non-tactical automated systems, materiel, combat support and combat service support systems. The term "system" as used throughout the manual is inclusive of all Weapon Systems, Equipment, Automated Information Systems and materiel acquired through the acquisition process.

**1.0.1** This document provides a substantial change to existing Marine Corps Acquisition Logistics management and materiel fielding processes as follows:

- (a) Establishes a "formal" Materiel Fielding Decision.
- (b) Incorporates revised Department of Defense (DoD) and Secretary of Navy (SECNAV) 5000 series guidance in support of acquisition reform initiatives.
- (c) Establishes a sequential review/approval process for logistics documentation, Independent Logistics Assessments (ILA) and Materiel Fielding actions.
- (d) Involves the Operating Forces (Active and Reserve) in all steps of the acquisition logistics planning and execution processes.
- (e) Updates Marine Corps Systems Command (MARCORSYSCOM) and Marine Corps Logistics Bases (MARCORLOGBASES) responsibilities for provisioning and replenishment procedures.
- (f) Streamlines the structure of Marine Corps logistics documentation.
- (g) Modifies terminology in order to conform with recent DoD, SECNAV and Marine Corps guidance.

**1.0.2** Updates to this document are anticipated as additional MARCORSYSCOM and MARCORLOGBASES handbooks become available. These handbooks address Supportability Planning & Execution, Configuration Management, Acquisition Procedures, Best Value Source Selection, Life Cycle Cost Estimating, Test and Evaluation, Science and Technology, System Engineering and/or System Safety, Analysis of Alternatives, Interoperability, Test Exposure Analysis and Financial Management.

**1.1 Background.** The concept of Integrated Logistics Support (ILS) has existed since 1964. This concept previously emphasized system readiness and supportability as a primary objective of the acquisition process. Recent amplifications to DoD policy have changed the focus and terminology with emphasis on the broader consideration of acquisition logistics and are aimed to ensure the early planning and implementation of life cycle support in the system acquisition

process to influence design, to improve readiness and supportability, and to minimize life cycle operation and support costs. DoD and SECNAV instructions also require that logistics supportability be a principal design parameter in specifications, requirements documents, source selection plans, and budget formulation. Logistics must be integrated with the many "parts" of the materiel acquisition process and must establish the foundation for total Life Cycle Logistics. Logistics support actions must be planned and conducted simultaneously, and integrated with, design actions to ensure the supportability elements, related functions and design efforts complement each other. Figure 1.1 illustrates that the window of opportunity to influence life-cycle costs (LCC) is very narrow, and that the supportability decisions made early in the acquisition process have the greatest impact on life-cycle costs. Prior to program initiation, cost drivers and supportability problems of similar systems provide the basis for logistics research, and ultimately for improved performance in the new system.

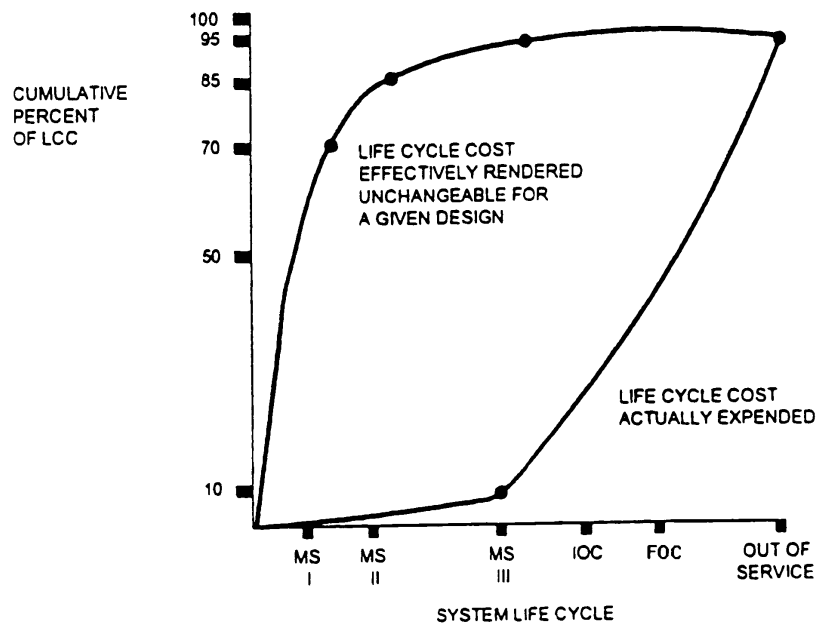


Figure 1.1 Typical System Life Cycle Cost.

**1.2 Acquisition Logistics.** Acquisition Logistics as applied throughout the acquisition process is a multi-functional, technical management discipline associated with the design, development, test, production, fielding, sustainment, and improvement and/or modification of cost and/or effective systems that achieve the user's peacetime and wartime readiness requirements. The principal objectives of Acquisition Logistics are to ensure that support considerations are an integral part of the system's design requirements, that the system can be cost-effectively supported throughout the life-cycle, and the infrastructure elements necessary for the initial fielding and operational support of the system are identified, developed and acquired. The majority of a system's life-cycle costs can be attributed directly to operations and support costs once the system is fielded. Because these costs are largely determined early in the system development period, it is

vitality important that system developers evaluate the potential operational and support costs of alternative designs and factor these into early design decisions.

Acquisition Logistics activities are most effective when they are integral to both the contractor's and Government's systems engineering technical and management processes. When this is the case, system designers, acquisition logisticians, and program managers are best able to identify, consider, and trade-off support considerations with other system cost, schedule, and performance parameters to arrive at an optimum balance of system requirements that meet the user's operational and readiness requirements.

**1.2.1** The Marine Corps Acquisition Logistics process consists of supportability elements and related disciplines (see figure 1.2 ). These elements and disciplines are applied throughout the life cycle and discussed in more detail in Chapter 3.

**1.3 Policy.** Department of Defense Directive (DoDD) 5000.1, Defense Acquisition, establishes policy and principles for all DoD acquisition programs, and identifies the Department's key acquisition officials and forums. DoDD 5000.2-R, Mandatory Procedures for Major Defense Acquisition Programs and Major Automated Information Systems, provides operating procedures for the management of acquisition programs. Secretary of Navy Instruction (SECNAVINST) 5000.2B, Implementation of Mandatory Procedures for Major and Non-major Defense Acquisition Programs and Major and Non-major Information Technology Acquisition Programs, provides mandatory procedures for the Department of the Navy (DON) and implements DoD Directives 5000.1 and 5000.2-R. SECNAVINST 4105.1, Integrated Logistics Assessment and Certification Requirements, provides policy and metrics requirements to assess and certify the adequacy of ILS planning, management, resources, and execution in support of the research and development, acquisition, production, and introduction of new or modified systems. MCO 4105.4, Ground Weapon Systems/Equipment (WS/E) and Automated Information Systems (AIS) Life Cycle Logistics Support Policy (LCLS) establishes Marine Corps policy for life cycle logistics support and assigns responsibilities to Marine Corps commands. MCO 5000.23, Policy for the Fielding of Ground Weapon Systems and Equipment Policy establishes Marine Corps policy for the fielding of weapon systems/equipment.

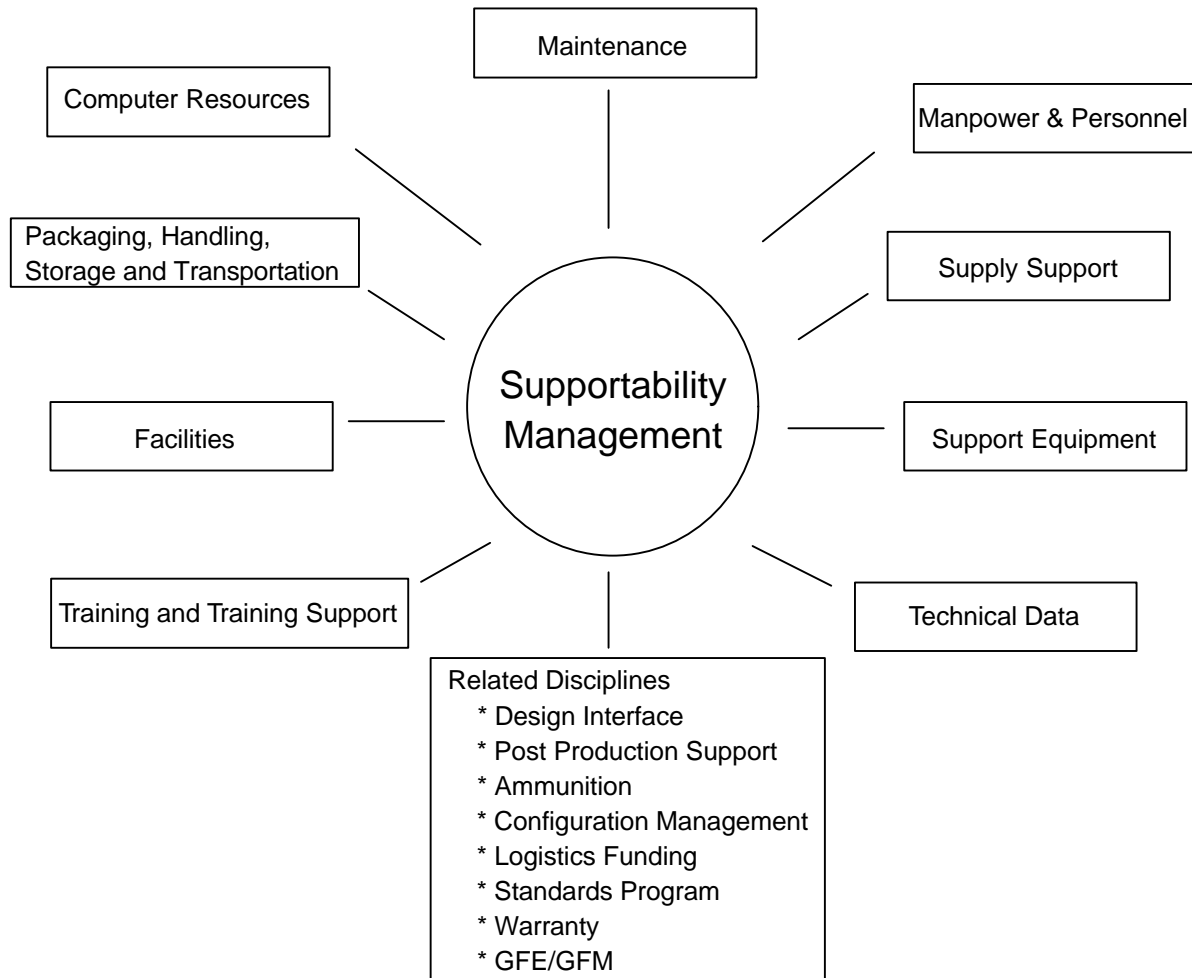


Figure 1.2 The Support Elements.

**1.4 Responsibilities.** Broad policy guidance and responsibilities for materiel life cycle logistics support are outlined in MCO 4105.4, Ground Weapon Systems/Equipment (WS/E) and Automated Information Systems (AIS) Life Cycle Logistics Support (LCLS) policy. The responsibilities outlined below are those that are closely linked to Acquisition Logistics and materiel summary of responsibilities for supportability elements and related disciplines during various phases of the materiel life cycle management process.

**1.4.1 Commandant of the Marine Corps (CMC) Deputy Chief of Staff for Installations and Logistics (DC/S I&L).** The DC/S I&L is responsible for:

- (a) Advising the CMC and Assistant Secretary of the Navy, Research, Development and Acquisition (ASN RD&A) on Acquisition Logistics policy within the Marine Corps.
- (b) Providing broad policy guidance for materiel management, life cycle logistics support and fielding of materiel.



- (c) Providing the facilities Logistics Element Manager (LEM).
- (d) Annually overseeing the computation of Depot Maintenance requirements.
- (e) Providing members for and validating the process for ILA reviews.
- (f) Reviewing and commenting on acquisition and logistics documents.
- (g) Functional Manager for Logistics Automated Information Systems.
- (h) Oversight of the implementation and execution of life cycle logistics support for all fielded systems.
- (i) Coordinating with MARCORLOGBASES on the Weapon System Support Program (WSSP).
- (j) Providing representatives to the Logistics Integrated Product Teams (IPT).

**1.4.2 Commanding General Marine Corps Combat Development Command (CG MCCDC).** The CG MCCDC is responsible for:

- (a) Developing requirements documents, including the Operational Requirements Document (ORD) which is the basis for further acquisition actions.
- (b) Designating an AP as mission critical or non-mission critical in requirements documents.
- (c) Prioritizing Program Objective Memorandum (POM) acquisition initiatives.
- (d) Determining the Approved Acquisition Objective (AAO).
- (e) Jointly, with CMC and MARCORSYSCOM, implementing and coordinating an analysis process resulting in the proper integration of manpower and/or hardware for the new products. Within the Marine Corps, this process is identified as the Doctrine, Organization, Training and Education, Equipment, Support and Facilities (DOTES) analysis process. The relationship between the Acquisition Logistics and DOTES processes is described briefly in Chapter 2.
- (f) Providing representatives to the Logistics IPTs.

**1.4.3 Commander Marine Forces Atlantic, Marine Forces Pacific, and Marine Forces Reserves (COMMARFOR).** The COMMARFORs are responsible for:

- (a) Reviewing and commenting on Acquisition Logistics documents.
- (b) Providing representatives to Logistics IPTs.

- (c) Providing representatives to Materiel Fielding Teams (MFT).
- (d) Notifying the CG MCCDC, COMMARCORLOGBASES and COMMARCORSYSCOM (PM/ APML/PS) when new equipment is placed in service.
- (e) Providing periodic feedback on suitability and supportability of fielded products.

**1.4.4 Commander Marine Corps Systems Command (COMMARCORSYSCOM).** The COMMARCORSYSCOM is responsible for:

- (a) Management of Marine Corps acquisition activities.
- (b) Assigning program and support personnel within the MARCORSYSCOM structure as follows:
  - (1) Program Manager (PM). The PM is assigned by COMMARCORSYSCOM to acquire products on behalf of the Marine Corps. The PM is vested with full authority, responsibility, and accountability for a product throughout the life cycle to include supportability and disposal.
  - (2) Assistant Program Manager (APM). The APM is designated by the PM to conduct overall program management on behalf of the PM for a discrete set of programs and/or projects.
  - (3) Assistant Program Manager for Software. The Commanding Officer, Marine Corps Tactical Systems Support Activity (MCTSSA), at Camp Pendleton is the designated MARCORSYSCOM APM for Software; providing software, firmware, and systems integration support for assigned tactical and/or non-tactical data systems during their entire life cycle. MCTSSA also is the primary Software Support Activity (SSA) for assigned tactical and/or non-tactical systems, however additional agencies can be utilized for software support, based on the nature of the program. For assigned programs, MCTSSA is responsible for maintenance and support of software and the software portion of the firmware.
  - (4) Project Officer (PO). Within the APM's functional area of responsibility, project officers are assigned to a specific AP. The PO represents the APM in matters regarding acquisition and fielding of the products throughout their life cycle. The PO manages the day-to-day operations of the program to include system design, acquisition funding, contractual and documentation needs.
  - (5) Assistant Program Manager for Logistics (APML). Director, Program Support (PS) assigns APMLs to designated PMs. The APML supports the PM by formulating, coordinating, and implementing a comprehensive Acquisition Logistics program to support programs and/or projects managed by the PM.
  - (6) Integrated Logistics Support Officer (ILSO). The ILSO is a designated acquisition logistics specialist assigned to specific programs or projects. The ILSO is given

authority by the APML to develop and manage the logistics posture of assigned programs and/or projects, and works directly with the POs and other support personnel to ensure that supportable products are provided to the operating forces.

(7) Logistics Element Manager (LEM). The LEMs are the technical experts for one (or more) of the support elements and related disciplines (Chapter 3). The LEMs provide technical expertise, guidance, and support to the ILSO for assigned programs.

**1.4.5 Commander Marine Corps Logistics Bases (COMMARCORLOGBASES).** The COMMARCORLOGBASES is responsible for:

- (a) Assigning a Weapon System Manager (WSM) to each acquisition program at its initiation.
- (b) Assigning the maintenance planning, warranty, provisioning, engineering drawing, configuration status accounting; packaging, handling, storage and transportation; supply support; Government Furnished Equipment and/or Government Furnished Materiel (GFE and/or GFM); post-production support; and weapon system support program LEMs.
- (c) Providing the specific materiel life cycle management functions identified in MCO 4105.4 and MCO 5000.23 and/or delegated by the COMMARCORSYSCOM.
- (d) Providing the service Inventory Control Point (ICP).
- (e) Performing functions as outlined in MCO 4105.1B, Weapon System Management (WSM) within the Marine Corps.

## CHAPTER 2

### MATERIEL ACQUISITION AND THE SUPPORTABILITY PLANNING PROCESS

**2.0 Purpose.** DoDD 5000.2-R establishes policy and procedures to ensure the design and acquisition of products that are cost-effectively supported, and to ensure that these systems are provided to the user with the necessary support infrastructure for achieving the user's peacetime and wartime readiness requirements. The Marine Corps acquisition process consists of milestones and fielding decision points. The number of phases and decision points are typically tailored to meet the specific needs of the product. This chapter describes each phase of a typical acquisition program. The decision which allows a program to advance to the next milestone is made by the Milestone Decision Authority (MDA). Specific exit criteria is followed by the MDA to make their determination. A simplified diagram of this process is depicted in Figure 2.1, and an overview of each phase is described below.

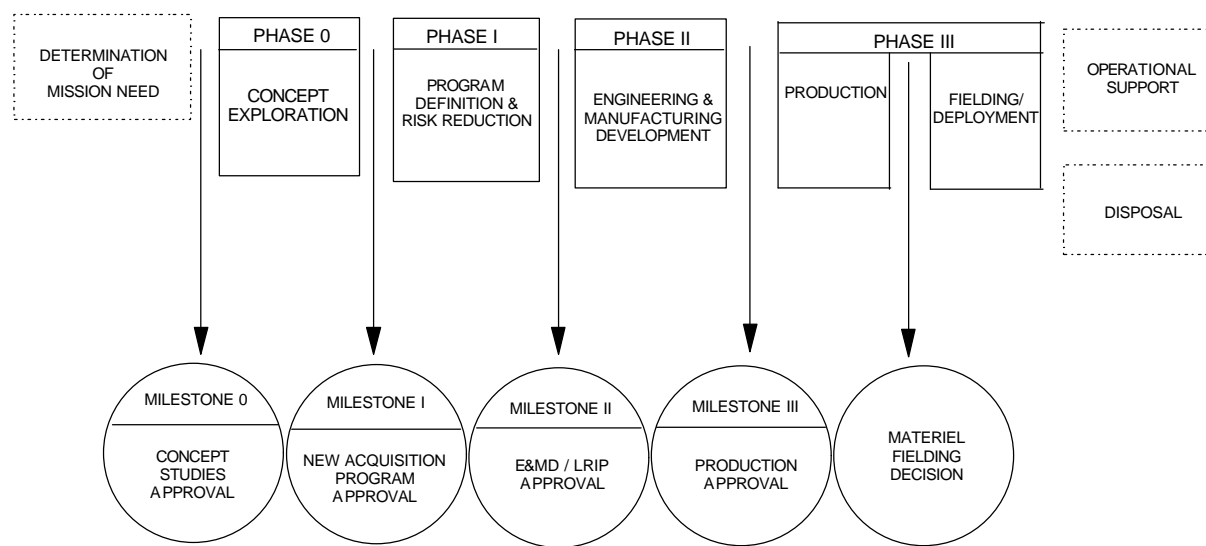


Figure 2.1 Acquisition Milestones, Phases and Fielding Decision.

**2.0.1 Phase 0: Concept Exploration (CE).** Phase 0 is conducted to explore and evaluate potential ideas and concepts, and to acquire the information necessary to assess the merits of the alternatives. During this phase, analysis is conducted to identify the logistics constraints and requirements which influence the design of the new product.

**2.0.2 Phase I: Program Definition and Risk Reduction (PD&RR).** Phase I is used to identify and reduce program risks before making the crucial decisions on which system best meets program objectives and on whether or not to enter the next phase. During this phase the preliminary design and engineering concepts are verified, necessary planning is accomplished, and tradeoff proposals are fully analyzed. The logistics effort will focus on integrating supportability design considerations and logistics alternatives into the system design effort with an emphasis on reduced life cycle cost.

**2.0.3 Phase II: Engineering and Manufacturing Development (E&MD) Phase.** Phase II is to fully engineer, develop, fabricate and test production representative models or Low Rate Initial Production (LRIP) quantities of the system. Operational and supportability testing is conducted to ensure the system meets its intended mission. LRIP quantities are typically no more than 10% of the total production quantities projected.

**2.0.4 Phase III: Production, Fielding and/or Deployment, and Operational Support.** The objective of this phase is to achieve an operational capability that satisfies mission needs. Results of the AP testing are resolved and fixes verified. During production, fielding and/or deployment, operational units are trained and equipment is procured and fielded in accordance with program and logistics planning products. Primary responsibility for systems normally transitions during Phase III of the acquisition process. The logistics support effort focuses on the timely delivery of all initial support resources to operational and support units and further seeks to ensure the capability to sustain this support. Logistics support efforts also include planning for disposal of the system, with emphasis on minimizing DoD's liability to environmental, safety, security, and health issues.

**2.0.4.1 Materiel Fielding Decision.** In order to ensure that only supportable, usable products are fielded, the Marine Corps uses a Materiel Release and Fielding Process that results in a "formal" fielding decision by the MDA. The Materiel Release and Fielding Process, identified in Chapter 4 of this manual, is completed prior to placing the system in service.

**2.0.4.2 Modifications.** After a system has been fielded, there may be a reason to modify or change the configuration with an Engineering Change Proposal (ECP). Modifications and changes are reviewed with respect to their impact on supportability to the system and are thoroughly assessed. Each of the support elements and related disciplines are analyzed to determine the impact of the proposed modification on the system. All changes to the support structure (i.e., manpower, training, technical manuals, spare parts, etc.) are carefully planned and executed.

## **2.1 Acquisition Logistics**

**2.1.1 Supportability Analysis.** Supportability analysis is conducted as an integral part of the system engineering process beginning at program initiation and continuing throughout program development. Supportability analyses forms the basis for related design requirements and subsequent decisions defining the most cost-effective support for the product over its entire life-cycle.

**2.1.2 Maintenance Support Concepts and Life Cycle Cost.** A maintenance support concept for a system is defined early in the acquisition cycle and refined throughout the life cycle. The total life-cycle logistics support costs of a product plays a key role in the overall support concept selection process.

**2.1.2.1 Contractor Support.** The current primary method for supporting Marine Corps' systems and/or equipment is through organic resources. However, under certain circumstances, organic support is not available in time, is not feasible, or is not the most cost effective means of

supporting the system. Under those circumstances, the Marine Corps may choose to utilize contractor support. There are three basic types of contractor support which are employed by the Marine Corps:

(a) Interim Contractor Support (ICS) through which short-term, interim support is provided until long term life cycle support is resolved.

(b) Contractor Logistics Support (CLS) through which life cycle support for a product is provided via contract.

(c) Contractor Operation and Maintenance of Simulators (COMS) uses a combination of contractor maintenance, Government in-service engineering support and Department of the Navy configuration management of simulators.

**2.1.2.2 Interim Contractor Support (ICS).** ICS is a temporary method of obtaining support for a system to enable fielding until shortfalls in organic support are overcome. It is Marine Corps practice that a system will not be fielded until all of the requisite logistics support is available where needed. As stated above, ICS is an interim means used when organic support capabilities are not provided prior to the Initial Operational Capability (IOC) date because of time or other program constraints. The duration of the ICS will vary by program, but in no case shall it exceed the time necessary to establish long term capabilities. Logistics support planning requirements are not diminished or relaxed because ICS is available.

**2.1.2.3 Contractor Logistics Support (CLS).** CLS is a method of obtaining support for a product throughout its life cycle. CLS may be utilized as appropriate for all of the requisite logistics support for specific logistics functions (i.e., depot support, training, hardware, or software support). Since the use of CLS could diminish the Marine Corps' ability to fully sustain itself, the decision will be based on full consideration of the system employment and deployment, readiness and sustainability requirements, design maturity, planned life cycle, manpower requirements and constraints, total life cycle costs, and system complexity. CLS contracts can be with the manufacturer or obtained via full and open competition. Also, CLS contracts may encompass the entire system, specific components of the overall system, or a specific level of support associated with the system.

**2.1.2.4 Contractor Operation and Maintenance of Simulators (COMS).** COMS is specifically used for the operation and maintenance of Marine Corps training devices and simulators. COMS provides commercial contractor personnel with requisite skills to operate and maintain training systems. The COMMARCORSYSCOM (SST) has the responsibility for the COMS program for Marine Corps ground training devices and/or systems and for life cycle support of them, to include spares provisioning from commercial sources. Further clarification pertaining to the procurement and life cycle support of Marine Corps ground training devices and/or systems is contained in MCO 5290.1. The Aviation COMS program falls under the Commander, Naval Air Systems Command (COMNAVAIRSYS), PMA 205. Office of the Chief of Naval Operations Instructions (OPNAVINST) 1551.11 discusses overall responsibility and procedures associated with Aviation training devices.

**2.1.3 Support Resources.** Support resources such as operator and maintenance manuals, tools, support equipment, training devices, etc., for systems are generally procured after the product hardware and/or software design stabilizes. Consideration for use of embedded training and maintenance techniques to enhance user capability and reduce life-cycle costs is encouraged. Commercial support resources are used where they are available, cost-effective, and can readily meet the user's requirements.

**2.2 Integrated Product Teams (IPT).** IPTs are used to perform many AP planning functions to include oversight and review. These IPTs function in a spirit of teamwork with participants empowered and authorized, to the maximum extent possible, to make commitments for the organization or the functional area they represent. IPTs are comprised of representatives from all appropriate functional disciplines working together to build a successful program and enable decision-makers to make the right decisions at the right time.

**2.2.1 Logistics IPTs.** Logistics IPTs focus on acquisition logistics functions and are structured to evaluate the logistics posture of a program at a particular milestone, prior to a fielding decision, and/or define and resolve difficult issues. Detailed procedures for the conduct of logistics IPTs are provided in the soon to be released Acquisition Logistics Handbook.

**2.3 Process Integration.** The acquisition logistics planning process is a repetitive and/or iterative process that requires integration with both the concept based requirements development and acquisition management processes. Figure 2.2 represents the relationships that must exist across the DOTES, milestone and acquisition logistics events. As systems move forward through the acquisition process, there is a repetitive review of supportability and cost issues. This repetitive, iterative review of requirements versus materiel solution and support concepts ensures that the users receive a product that meets their needs and is supportable throughout the system life cycle.

**2.4 Periodic Logistics Assessments.** Throughout the acquisition and materiel fielding process, periodic reviews are conducted to assess the effectiveness of logistics planning and post fielding supportability of the product. These assessments involve representatives from Headquarters Marine Corps (HQMC), Marine Corps Combat Development Command (MCCDC), MARCORSYSCOM, MARCORLOGBASES, the operating forces, and are discussed in detail in Chapter 5.

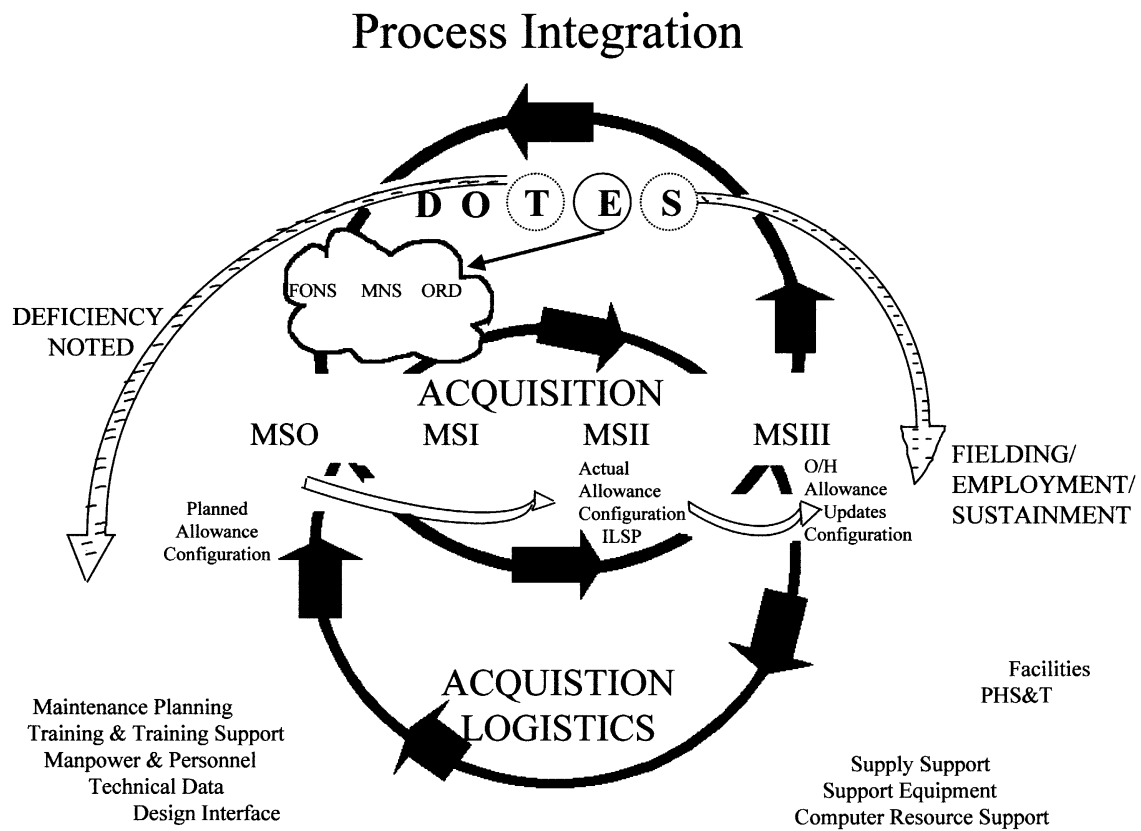


Figure 2.2 The Logistics Challenge.





## CHAPTER 3

### SUPPORTABILITY ELEMENTS AND RELATED DISCIPLINES

**3.0 Purpose.** This chapter introduces the supportability elements (formerly ILS elements) and related disciplines. Each element and related discipline is explained in terms of what it is, how it is accomplished, who is responsible, and how the elements and/or disciplines fit into the Marine Corps acquisition and materiel fielding processes. Detailed discussions of products that result from supportability elements are provided in the draft Acquisition Logistics Handbook (planned release July 98).

**3.1 Background.** Providing logistics support for a system requires the acquisition and integration of support by a variety of offices and/or agencies in many different functional areas. The integration of these elements and disciplines into a system's design is essential to acquiring systems that meet operational and support objectives at fielding and exhibit reasonable life cycle costs. Tables 3.1 and 3.2 summarize supportability and functions, and offices of primary responsibility during the phases of the materiel life cycle support process. During the initial stages of the acquisition process, MARCORSYSCOM has the lead for planning and executing supportability processes. As an Acquisition Program (AP) moves forward to the production, deployment and post fielding support phase, there is a logical transition of the lead for supportability processes to MARCORLOGBASES.

Table 3.1 Materiel Life Cycle Support Responsibilities.

FUNCTION	DURING ACQUISITION PHASE	DURING FIELDING & POST FIELDING
1. MAINTENANCE		
(A) CONCEPT	MARCORSYSCOM	MARCORLOGBASES
(B) PLANNING	MARCORLOGBASES	MARCORLOGBASES
2. MANPOWER AND PERSONNEL	MARCORSYSCOM	MCCDC (TFS)
3. SUPPLY SUPPORT		
(A) PROVISIONING	MARCORLOGBASES	MARCORLOGBASES
(B) REPLENISHMENT	MARCORLOGBASES	MARCORLOGBASES
4. SUPPORT EQUIPMENT	MARCORSYSCOM	MARCORSYSCOM
(A) TEST, MEASUREMENT & DIAGNOSTIC EQUIPMENT	MARCORSYSCOM (PM TMDE)	MARCORSYSCOM
(B) GENERAL SUPPORT EQUIP	MARCORSYSCOM (PM TMDE)	MARCORSYSCOM
(C) POWER GENERATION/ECU's	MARCORSYSCOM (PM CLSE)	MARCORLOGBASES
5. TECHNICAL DATA	MARCORLOGBASES	MARCORLOGBASES
(A) ENGINEERING DRAWINGS	MARCORLOGBASES	MARCORLOGBASES
(B) TECHNICAL PUBLICATIONS	MARCORSYSCOM (PSD)	MARCORLOGBASES
6. TRAINING AND TRAINING SUPPORT	MARCORSYSCOM (SST-MT)	MARCORSYSCOM (SST-MT)

Table 3.1 Materiel Life Cycle Support Responsibilities (cont'd).

FUNCTION	DURING ACQUISITION PHASE	DURING FIELDING & POST FIELDING
7. FACILITIES	CMC (LFL)	CMC (LFL)
8. PACKAGING, HANDLING, STORAGE , TRANSPORTATION & TRANSPORTABILITY		
(A) PHS&T	MARCORLOGBASES	MARCORLOGBASES
(B) TRANSPORTABILITY	MARCORSYSCOM (PSE)	MARCORSYSCOM (PSE)
PRODUCTION/DEPLOYMENT: COMMARCORLOGBASES -primary and MARCORSYSCOM (PSL)-support.		

Table 3.2 Related Disciplines.

RELATED DISCIPLINES	DURING ACQUISITION PHASE	DURING FIELDING & POST FIELDING
1. WARRANTY	MARCORLOGBASES	MARCORLOGBASES
2. POST PRODUCTION SUPPORT	MARCORLOGBASES	MARCORLOGBASES
3. AMMUNITION	MARCORSYSCOM (AM)	MARCORSYSCOM (AM)
4. CALS/JCALS	MARCORSYSCOM (PSL)	MARCORLOGBASES
5. QUALITY ASSURANCE	MARCORSYSCOM (PSE)	MARCORLOGBASES
6. STANDARDIZATION	MARCORSYSCOM (PSE)	MARCORLOGBASES
7. CONFIGURATION MGT		
(A) CONFIGURATION MGT	MARCORSYSCOM (PSE)	MARCORLOGBASES
(B) CONFIG STATUS ACCT	MARCORSYSCOM (PSE)	MARCORLOGBASES
8. WPN SYS SUPPORT PRG	MARCORLOGBASES	MARCORLOGBASES

## 3.2 Responsibilities for Supportability Management

### 3.2.1 Maintenance Planning

**3.2.1.1 Introduction.** Maintenance planning is an iterative process to explore alternatives and to establish concepts and plan for maintaining a system throughout its life cycle. Maintenance planning is a principal analytical activity and provides the basis for development of all other logistics support requirements. This process starts with the development of a maintenance concept which is published in requirements documents in very broad terms. As an acquisition program proceeds through the various acquisition phases, maintenance planning will become more specific. Ultimately, individual maintenance actions (i.e., repair on site, replace and repair, replace and evacuate) are assigned to each of the three levels of maintenance. The levels of maintenance are: organizational, intermediate, and depot. Maintenance planning is performed to ensure:

(a) The development of the minimum set of maintenance requirements necessary to operate the equipment at its assigned readiness threshold.

(b) The assignment of maintenance tasks to the echelons where they are accomplished most efficiently and effectively.

(c) The development of a maintenance concept and detailed maintenance planning which will provide the information necessary to support logistics planning and management decisions.

**3.2.1.2 Process.** A specific maintenance concept is formulated at the initiation of each program. As the system design progresses, maintenance concepts are refined based on the results of specific tasks within the supportability process. These tasks include Marine Corps Level of Repair Analysis (MCLORA), Failure Modes, Effects Analysis (FMEA), and warranty provisions. Complexity and cost of the system, preventive and corrective maintenance tasks, and the skills and numbers of personnel required and available are some of the areas analyzed to refine maintenance concepts. The maintenance concept is documented in the Integrated Logistics Support Plan (ILSP).

### **3.2.1.3 Responsibilities**

(a) The office responsible for maintenance planning policy and oversight within the Marine Corps is CMC (LPP).

(b) The MARCORSYSCOM (APML) is responsible for providing input to the MCCDC ORD development process and in conjunction with MARCORLOGBASES, will outline the initial maintenance concept. All LEM's are responsible for providing input to MARCORLOGBASES on maintenance planning. The maintenance concept is developed through review of historical, comparative analysis, cost data, and unique support and/or employment requirements.

(c) MARCORLOGBASES is the LEM for maintenance planning and is responsible for providing technical guidance and/or support to MARCORSYSCOM and for ensuring that individual maintenance concepts and plans are formulated in accordance with established Marine Corps policy. This planning can be accomplished internally by the Marine Corps or may include actions by the product contractor and/or Government laboratory or joint service personnel.

(d) COMMARCORLOGBASES provides the Maintenance Interservice Support Management Office for the Marine Corps and as such is also responsible for depot maintenance planning.

### **3.2.1.4 Reference Directives**

(a) MCO P4790.10, Logistics Depot Maintenance Interservice.

(b) DoDD 4151.18, Maintenance of Military Materiel.

(c) MCO P4410.22C, Wholesale Inventory Management and Logistics Support of Multi-Service Used Non-Consumable Items.

(d) MCO 4790.3, MIMMS Depot Policy Manual.

(e) MCO 4790.2C, MIMMS Field Procedures.

## **3.3 MANPOWER, PERSONNEL, AND TRAINING (MPT)**

**3.3.1 Introduction.** In order to maximize the return on limited resources, it is important that the Manpower, Personnel and Training (MPT) community take every opportunity to reduce, or constrain resource requirements. The Defense acquisition process provides the opportunity to limit acquisition system MPT resource requirements, by establishing constraints early in the acquisition process. The objective is to contain system requirements to "affordable levels" and to set objectives and thresholds based on factors such as; what resources are already available when the current system is taken out of the inventory, and what impact will ongoing infrastructure reinvention and streamlining initiatives and force structure reductions have on Component out-year resources". Once the limits are developed, it is the MPT community's responsibility to communicate those limits to the PM as program constraints in the ORD. Unless the constraints are included in the ORD, the PM is not obligated to consider them when developing a system design solution and making tradeoffs during the system engineering process. The manpower staffing process can be lengthy. It can take up to 5 years to fill new Table of Organization (T/O) requirements with the proper numbers, grades and skills of personnel. Even when staffing requirements can be met within the existing personnel inventory, variations in recruiting, training, and promotion plans can cause a delay of at least 6 months between approval of T/O changes and arrival of new Marines. In lieu of requesting changes to T/Os, other means to accomplish the mission, such as internal reorganizations, will be explored.

### **3.3.2 Process**

(a) Specific manpower requirements are determined for each new system and/or product entering the Marine Corps inventory as well as for major modification of existing systems. These requirements, which are identified through the supportability planning process, can range from no additional manpower, for one-for-one replacement items of equipment, to a significant manpower increase or decrease for new items. An assessment of manpower impact is made to identify critical MPT issues and to determine the manpower required to support the program. During the CE phase, an estimate of manpower goals and constraints for operating, maintaining and supporting the emerging system are developed and documented in the ILSP. The manpower goals and constraints estimated during CE are validated during PDRR through the hardware and/or manpower integration programs Training Planning Process Methodology (TRPPM) analysis. It is essential to have a definitive manpower acquisition development strategy prior to Milestone II to ensure that manpower factors are considered during system design and acquisition planning. The manpower estimates are further refined during the E&MD phase. During that time, the ILSO must coordinate with the CG MCCDC Total Force Structure (TFS) and the appropriate HQMC Occupational Field sponsors to ensure that manpower structure is available as planned. The ILSO must also coordinate with CG MCCDC, Training and Education to ensure training needed to field, operate and maintain the system is available as planned.

(b) The specific manpower requirements for a system are identified in the T/O which states the manpower requirements necessary to accomplish the assigned mission of an organization. If the units which will be operating, maintaining, and supporting the new equipment do not have personnel with the correct skills, grades or organizational structure on their existing T/O(s), then the T/O may have to be modified or a new T/O developed. Likewise, if the organizations tasked with training the operators and maintainers do not have the correct personnel on hand, T/Os may have to be modified. Once the specific manpower requirements have been determined, the MARCORSYSCOM PM submits required T/O changes to the CG MCCDC

(TFS) for coordination and/or approval and subsequent submission to the CMC, DC/S Manpower and Reserve Affairs (DC/S M&RA) for manpower planning.

### **3.3.3 Responsibilities**

(a) The CMC (DC/S M&RA) is responsible for manpower policy within the Marine Corps.

(b) CG MCCDC (TFS) coordinates all personnel structure and equipment allowance requirements for new personnel and/or equipment in the Marine Corps.

(c) The MARCORSYSCOM (PM SST) is the manpower LEM and is responsible for providing guidance and/or support to the ILSO on manpower issues. PM SST is also the focal point for TRPPM analyses.

(d) The ILSO, with support from the manpower LEM, is responsible for assessing the manpower requirements for an acquisition item. The PM is responsible for proposing the necessary T/O changes to the CG MCCDC (TFS).

### **3.3.4 Reference Directives**

(a) MCO 5311.1, Table of Organization Management Procedures.

(b) HQO 5400.20, Programmed Force Structure Management.

(c) MCO P1200.7, Military Occupational Specialties (MOS) Manual.

### **3.3.5 SUPPLY SUPPORT**

**3.3.5.1 Introduction.** It is a Marine Corps practice that the support necessary to operate and maintain a system will be available at the proper echelons of supply and maintenance prior to fielding. This support, including spare and/or repair parts, and publications, are continued throughout the system's life cycle. Supply support consists of all management actions, procedures, and techniques used in acquiring, cataloging, receiving, storing, transferring, issuing, and disposing of equipment, and spares and/or repair parts. The military components (Army, Navy, Air Force, Marine Corps, Defense Logistics Agency) are assigned as a Primary Inventory Control Activity (PICA) or Secondary Inventory Control Activity (SICA) for specific commodities of materiel. Inventory managers working at various inventory control points are assigned item management responsibility. The Marine Corps ultimately manages only a small percentage of the items it uses. Within the Marine Corps, supply support is divided into two phases: provisioning and replenishment.

#### **3.3.5.2 Provisioning, Replenishment, and Cataloging**

### **3.3.5.2.1 Provisioning**

(a) Introduction. Supply support achieved through provisioning commences when the product is placed in service and ends when full responsibility for support is assumed by the Marine Corps supply system through routine replenishment. Through provisioning, all support items required for an initial operating period for Garrison Operating Levels (GOL), War Reserve Materiel Requirements (WRMR) and for initial system stocks are made available in a protected status prior to the ready for issue date.

(b) Process. The provisioning planning process starts during the concept exploration phase of the acquisition process. Provisioning planning will focus on early funding estimates for budgetary planning, validation of maintenance significant and non maintenance significant items, identification of support items, and (during production and deployment) the acquisition and distribution of the support items. Provisioning is the process of determining the range and depth (quantity) of support items (i.e., spare and/or repair parts) required to operate and maintain a new system for an initial period of time. Provisioning must include the identification, selection, and acquisition of initial support items required for maintenance and provide instructions to ensure these items are positioned in the supply system and/or maintenance echelons before new systems are placed in service. Assignment and verification of management codes such as Source, Maintenance, and Recoverability Code (SMRC), criticality, item management, and others occur during the provisioning process in consonance with other supportability analysis processes. Stock list publications such as the SL-3 and/or SL-4, instructional publications (MI, TI, SI, LI, etc.) and commercial manual supplements are prepared and distributed during the provisioning process.

### **3.3.5.2.2 Responsibilities**

(a) CMC Logistics Plans and Policy (LPP) is responsible for provisioning policy within the Marine Corps.

(b) The MARCORSYSCOM ILSO is responsible for coordinating provisioning input from MARCORLOGBASES (WSM) for each Marine Corps acquisition program and/or project.

(c) MARCORLOGBASES is the provisioning LEM and is responsible for providing technical guidance and support to the PM on provisioning matters. The provisioning LEM is also responsible for performing the actual provisioning functions, including identification of all required data.

### **3.3.5.2.3 Reference Directives**

(a) MCO P4400.79, Provisioning Manual.

(b) DoD Directive 4140.1-R, Materiel Management Regulation.

(c) MCO 4105.1 Weapon System Management within the Marine Corps.

### **3.3.5.3 Replenishment**

#### **3.3.5.3.1 Introduction**

(a) The replenishment phase of supply support is the means by which the pipeline of spare and/or repair parts is kept full. This process is a continuous updating or refinement of the support requirements identified prior to system fielding. These requirements, which were based on anticipated failure rates, maintenance times and other related factors during provisioning, must be recomputed based on actual values measured during the fielding/deployment phase.

(b) Each system may have unique post production support problems, many of which were not anticipated. These problems may include obsolete parts, inadequate sources of supply for the spare and/or repair parts, changes in technology, and are dealt with and corrected as part of the replenishment process.

**3.3.5.3.2 Process.** The replenishment process begins where the provisioning process leaves off. Replenishment involves all inventory management functions to include:

- (a) Identifying all spare and/or repair parts, and determining the quantity and location requirements.
- (b) Contracting, receipt, storage, and distribution of the spare and/or repair parts.
- (c) Disposition of the parts throughout the remaining life cycle of the equipment.

#### **3.3.5.3.3 Responsibilities**

- (a) The CMC (LPP) is responsible for replenishment policy within the Marine Corps.
- (b) MARCORLOGBASES is the replenishment LEM and is responsible for performing the actual inventory management functions for the Marine Corps.

#### **3.3.5.3.4 Reference Directives**

- (a) DoD Directive 4140.1-R, Materiel Management Regulation.
- (b) MCO 4105.1, Weapon System Management within the Marine Corps.

### **3.3.5.4 Cataloging**

(a) **Introduction.** Cataloging is the process that establishes a National Stock Number (NSN) and Federal Item Identification in all Marine Corps logistics files for new systems and for all items of supply required for that system. This includes data required for the Logistics Management Information System (LMIS) and Federal Logistics Information System (Fed Log).



(b) Process. The cataloging process is closely related to and supports provisioning events to include:

- (1) Screening provisioning data.
- (2) Review of engineering data.
- (3) Classification to determine which agency will manage an item. NSN attainment (assignment or registration as a user) will be generated for selected spare/repair parts. Item identification is originated, developed, and processed into the DoD and Marine Corps logistics systems in support of repair parts and the system.
- (4) Review of Joint Electronic Type Designation System requests for communication-electronics equipment, prepared by the contractor, and a response provided upon approval of electronic nomenclature. (MIL-STD-196D)

#### **3.3.5.4.1 Responsibilities**

- (a) MCCDC (TFS) has oversight responsibility for the LMIS System and Table of Authorized Materiel Control Number (TAMCN) assignment.
- (b) MARCORSYSCOM ILSO is responsible for using cataloging information to update LMIS files.
- (c) MARCORLOGBASES is responsible for processing the Cataloging Action Request (CAR) and responding to the originating office.

#### **3.3.5.4.2 Reference Directives**

- (a) MCO 4410.27, Processing Cataloging Action Requests.
- (b) DoD Directive 4140.1-R, Materiel Management Regulation.
- (c) MCO 4105.1 Weapon System Management within the Marine Corps.

### **3.3.6 SUPPORT EQUIPMENT**

#### **3.3.6.1 Introduction**

(a) Support equipment includes all the equipment (mobile or fixed) required to support the operation and maintenance of a materiel system. This includes associated multi-use General Support Equipment (GSE), and Test, Measurement and Diagnostic Equipment (TMDE). The support equipment logistics element also includes the acquisition of logistics support for the support equipment.

(b) The ability to operate and maintain weapon systems/equipment depends, in part, on the availability of the necessary support equipment at the correct operational site and maintenance echelon. To accomplish this, support equipment must be identified and developed concurrent with the development of the system it is intended to support.

### **3.3.6.2 Process**

(a) TMDE procured for the Marine Forces (MARFOR) may be commercial, modified commercial, or militarized. TMDE which is specifically developed or configured for a system that requires additional shelters to support its deployment to the MARFORs, or requires operational testing and evaluation to validate its effectiveness and suitability is managed in accordance with SECNAVINST 5000.2B.

(b) Automatic Test Equipment (ATE) identification and selection decisions will be governed by DoD Policy Procedures, and will be from among the currently approved Family of Approved ATE. Detailed consideration must be given to software and/or hardware *Test Program Sets/Application Program Sets* (TPS/APS) development costs, which include Test Requirements Analysis, procurement of Technical Data, and Life Cycle Management costs. In addition, the compatibility of planned ATE with current ATE, to include other Services ATE, must be considered. All procurement or modification of common, or general purpose ATE will be accomplished by MARCORSYSCOM PM-TMDE. Special purpose ATE is the responsibility of the appropriate Program Management Office. Once approved, ATE planning, selection and acquisition should coincide with, and be an integral part of the development and acquisition of the system it supports.

(c) GSE is used in support of the system to house (shelters), operate (air conditioners, generators), transport (fork trucks, trailers), and maintain the equipment. Requirements for this support equipment must be identified by the PM of the end item requiring the support. Those requirements must be identified to the COMMARCORSYSCOM PM or the COMMARCORLOGBASES (WSM) responsible for the GSE as early as possible to ensure that the procurement of the GSE can be coordinated with the delivery of the system to the field.

### **3.3.6.3 Responsibilities**

(a) MARCORSYSCOM (PM-TMDE) is responsible for TMDE and ATE policy within the Marine Corps. PM-TMDE is also responsible for the overall planning and programming of funding for general purpose TMDE, ATE, the ATE program (ATEP), budgeting, and initiating procurement of new or replacement calibration equipment. PM-TMDE is the TMDE and ATE LEM and is also responsible for providing technical and engineering services to the end item PM on issues relating to those functional areas. PM-TMDE is also the ATE LEM until such time as specific ATE requirements are identified.

(b) MARCORSYSCOM (PM, CSLE) is responsible for the planning, programming, funding and procurement of new items of GSE. This office is also the GSE LEM and is responsible for providing technical guidance and/or support to the end item PM on issues relating to GSE.

(c) The PM is responsible for programming the funds necessary to develop and procure any support equipment or special purpose test equipment required in support of a system procurement. The PM is also responsible for procuring all special purpose mechanical test equipment, identifying all requirements for TMDE and ATE to MARCORSYSCOM (PM-TMDE), and identifying all requirements for GSE to the appropriate MARCORSYSCOM PM or MARCORLOGBASES.

(d) MARCORLOGBASES is responsible for notifying the PM when requirements for new support and test equipment are identified during the provisioning process. This is done to ensure all support and test equipment requirements have been identified as part of the acquisition process.

(e) Other responsibilities are detailed in the directives listed below.

#### **3.3.6.4 Reference Directives**

(a) MCO 10510.18, Policy Responsibility for Test, Measurement, and Diagnostic Equipment (TMDE).

(b) MCO 4733.1, Marine Corps Test, Measurement, and Diagnostic Equipment Calibration and Maintenance Program.

#### **3.3.7 TECHNICAL DATA**

**3.3.7.1 Introduction.** Technical data consists of all recorded scientific and technical information regardless of form or characteristics. Technical data includes engineering drawings, operator and maintenance manuals, specifications, inspection test and calibration procedures, and computer program software documentation. Technical data is acquired to:

(a) Control the acquisition program (i.e., contract status reports, progress reports, and funds status reports).

(b) Define the design (i.e., engineering drawings, equipment specifications, and configuration status accounting reports).

(c) Ensure the right program decisions are made (i.e., master plans, government furnished information (GFI) deficiency reports, and milestone schedules).

(d) Provide for supportability (i.e., provisioning data, and technical publications).

(e) Ensure the operational effectiveness of the system (i.e., test plans and reports).

#### **3.3.7.2 Technical Data Management**

**3.3.7.2.1 Introduction.** Technical data management encompasses the identification, coordination, collation, validation, integration, and control of data requirements. This process

includes planning for economical acquisition and timely receipt of data, ensuring the data is adequate for its intended use, and managing the data assets after their receipt. Data management includes monitoring the storage, retrieval, and disposal of data.

### **3.3.7.2.2 Process**

(a) The need for data must be based on operational planning factors leading to the requirements for a specific system. Data requirements vary from one acquisition phase to another and from one program to another. Those personnel requesting data must ensure that only data actually needed to support the acquisition program during a particular acquisition phase is ordered or price optioned prior to the phase required.

(b) Technical data requirements are placed on contract by means of a Contract Data Requirements List (CDRL) (DD Form 1423). This form defines the data requirement, the delivery schedule(s), the distribution, and the review and approval cycles. The data requirements are specified on the CDRL by means of a Data Item Description (DID) (DD Form 1664). Once the CDRL is reviewed and approved by the PM, the form becomes an attachment to the contract.

(c) The data placed in the contract is delivered to the addressees in block 14 of the CDRL. At that point the addressees are responsible for reviewing the data to ensure it meets the contractual requirements (and can be used for its intended purpose) and for notifying the contracting officer of acceptability or needed corrections. A process must be established to monitor the status of each CDRL on a contract. This monitoring must include: the date(s) on which the data is due; actual date of receipt; whether Government response is required and due date; date accepted or rejected; and whether submission and response are timely.

### **3.3.7.2.3 Responsibilities**

(a) MARCORSYSCOM (PSE) is responsible for technical data management policy within the Marine Corps. PSE is also the technical data LEM and is responsible for providing guidance and support to the PM on technical data matters. MARCORLOGBASES is the responsible technical data management office for fielded weapon systems (e.g., Statements of Work for Inspect and Repair Only as Necessary, rebuild, and the procurement of spare and/or repair parts).

(b) Responsibility for identifying specific data requirements to support an acquisition lies with the individual or office who needs and/or uses the data or has responsibility for the functional area that needs and/or uses the data (i.e., MARCORLOGBASES is responsible for identifying the data needed to perform and support provisioning).

(c) The data management officer at the acquiring activity is responsible for ensuring that the acquisition of data is in accordance with established DoD and Marine Corps policy.

(d) The PM is responsible for approving the data acquired in support of the product.

(e) MARCORSYSCOM (PS) chairs the Marine Corps' Technical Data Requirements Review Board during acquisition. MARCORLOGBASES chairs the Technical Data Requirements Review Board for fielded systems.

#### **3.3.7.2.4 Reference Directive**

- (a) MCO P4000.21.
- (b) MIL-PRF-49506, Logistics Management Information.

#### **3.3.7.3 Engineering Drawings**

**3.3.7.3.1 Introduction.** Engineering drawings are graphic depictions of the physical characteristics of a system. There are four levels of engineering drawings; conceptual, developmental, product, and commercial. Further information can be found in MIL-DTL-31000A. These drawings are used to ensure proper configuration control, support quality assurance and procurement functions, and fulfill logistics requirements.

**3.3.7.3.2 Process.** Throughout the acquisition cycle, engineering drawings are used to record and evaluate a contractor's progress in developing a program. While the conceptual drawings are not always specified as a deliverable under a contract, they are often provided to the Government to evaluate the equipment design. When the drawing deliverables are required by the Government, they are usually Product level. The requirement for these drawings must be specified by a CDRL in the E&MD contract. Drawings are not required for commercial products and non-development items.

#### **3.3.7.3.3 Responsibilities**

- (a) MARCORSYSCOM (PSE) is responsible for engineering drawings policy within the Marine Corps.
- (b) MARCORLOGBASES is the engineering drawing LEM and is responsible for providing technical guidance and/or support to the PM on drawing matters. MARCORLOGBASES is also responsible for reviewing and ensuring the adequacy of drawings procured in support of Marine Corps weapon systems/equipment and for storing, maintaining, and distributing the drawings.
- (c) The MARCORSYSCOM PM is responsible for ensuring that drawings required to support the acquisition strategy are acquired via a CDRL in the contract. The engineering drawing LEM will assist the PM in defining the requirement and assisting in the review of the deliverables. Sufficient design disclosure should be obtained to support reprourement actions.

#### **3.3.7.3.4 Reference Directives**

- (a) MCO P4410.26, Engineering Drawings.
- (b) MIL-HDBK-288, Review and Acceptance of Engineering Drawing Packages.
- (c) MIL-DTL-31000A.

### **3.3.7.4 Technical Publications**

**3.3.7.4.1 Introduction.** Technical publications are documents which provide operation and maintenance instructions (hardware and software) for weapon systems/equipment. The publications, which accompany the equipment to the field, contain operation, preventive maintenance, fault isolation and repair procedures, and parts lists. In addition to their use in operation, maintenance and rebuild of equipment, the publications may be used as training and instructional materiel.

### **3.3.7.4.2 Process**

(a) Normally each new system entering the Marine Corps inventory or each existing system which is modified will require new or revised technical publications. These publications may be anything from copies of a hardware contractor's existing publication for an off-the-shelf or Nondevelopmental Item (NDI) to full military-formatted publications for a newly developed system to Interactive Electronic Technical Manuals (IETM). The technical publications are normally developed by the hardware contractor during the E&MD phase of the system acquisition. Scheduling the delivery of the technical publications is a critical issue. Preliminary technical manuals must be available during the E&MD phase to support operational test and evaluation and training activities. Quality control procedures such as the validation of publications by the developing contractor and verification of publications by the Marine Corps prior to delivery of the final product must also be scheduled as part of the contractual requirements.

(b) The technical manual requirements are specified as a separate line item in the contract and described by means of a Technical Manual Contract Requirement (TMCR) attachment. The TMCR will require the development of digitized technical publications whenever possible.

(c) Commercial manuals and supplementation requirements are described in the Statement of Work (SOW) and referenced to a Data Item Description (DID). (The TMCR is used only for Military Specification (MIL-SPEC) publications; however if commercial manuals are submitted by the contractor as part of the "system" documentation, they can be addressed in the TMCR).

(d) When technical publications from other sources (i.e., commercial manuals, other service publications) contain parts lists and components of end item lists, these lists are to be adapted for Marine Corps use. Parts lists data must be coordinated with MARCORLOGBASES.

(e) Every effort should be made to develop technical manuals with integral components of end item lists (SL-3) and repair parts lists (SL-4). Usually the components of end item lists will be incorporated into the operator's manual and the repair parts lists will be incorporated into the maintenance manuals. Integrating the parts lists into the manuals will reduce the number of technical publications the MARFORs must maintain.

### **3.3.7.4.3 Responsibilities**

(a) MARCORSYSCOM (PSD) is responsible for technical publications policy, except for software within the Marine Corps. PSD is also the technical publications LEM and is responsible

for identifying specific technical publications requirements and for providing the TMCR to the PM for inclusion in the E&MD and/or production contract as appropriate. PSD is responsible for ensuring the procurement of publications for auxiliary support equipment. PSD is also responsible for the staffing review, verification, and directing the printing and distribution of new technical publications.

(b) MARCORLOGBASES is responsible for development of the stock lists (SL-3 and SL-4) and instructional type publications such as Modification Instructions (MI), Technical Instructions (TI), and Supply Instructions (SI). MARCORLOGBASES is also responsible for preparing or verifying supplements to technical publications that contain parts information including other service or commercial publications adopted for Marine Corps use. MARCORLOGBASES assumes responsibility for all technical publications once they have been published and fielded.

#### **3.3.7.4.4 Reference Directives**

- (a) MCO 5215.16A, Inter servicing of Technical Manuals and Related Technology.
- (b) MCO P5215.17, The USMC Technical Publication System.

**3.3.7.5 Establishment of Rights in Data.** The purpose of this procedure is to identify those actions required in preparation of a Procurement Request (PR) in order to ensure that the Government obtains the rights in data that it requires and that proprietary claims may be settled before they become contentious legal issues. Government rights in data fall into four categories.

- (a) Unlimited Rights.
- (b) Government Purpose Rights.
- (c) Limited Rights.
- (d) Specifically Negotiated License Rights.

### **3.3.8 TRAINING AND TRAINING SUPPORT**

**3.3.8.1 Introduction.** Training and training support encompass the processes, procedures, techniques, training devices, and equipment used in training personnel to operate and maintain a system. This includes initial training to place the system into service, new equipment training and follow-on training. The goal of the training function is to ensure that all training resources and programs are provided at the proper time and place to ensure that the procured system can be properly operated and maintained.

**3.3.8.2 Process.** Specific training and support requirements must be determined for each new system entering the Marine Corps inventory as well as for each major modification of existing systems. These requirements are identified through a tailored TRPPM integration analysis conducted during the CE phase. Identification of training requirements and development of courseware will be done per Systems Approach to Training (SAT), MIL-PRF-29612. Training

materials are developed in accordance with the Marine Corps Training and Education System and in close coordination with the MCCDC Training and Education Division Standards Branch. Training LEMs may utilize training expertise located outside the Marine Corps to analyze all aspects of training support for an acquisition.

### **3.3.8.3 Responsibilities**

- (a) CG MCCDC is responsible for training policy within the Marine Corps.
- (b) MARCORSYSCOM Training Systems, Manpower Training is the training LEM and has the following responsibilities:
  - (1) Provide technical guidance and/or support to the program office on all training matters.
  - (2) Identify, with the approval of MCCDC, all training tasks, requirements and concerns by MOS and skill levels, for the successful operation and maintenance of the system.
  - (3) Develop the training chapter of the ILSP, which contains the Training Program Development Plan (TPDP). The TPDP contains the major training milestones for all aspects of training associated with the development, testing, fielding and support of the weapon system.

### **3.3.8.4 Reference Directives**

- (a) MCO 1553.1, The Marine Corps Training and Education System.
- (b) MCO 1580.7, Interservice Training.
- (c) MCO 1510.XX Series, Individual Training Standards.
- (d) MCO 1553.6, Development, Management, and Acquisition of Interactive Courseware (ICW) for Marine Corps Instruction.
- (e) MIL-PRF-29612, Performance Specifications for Training Data Products.
- (f) MIL-HDBK-1379-1, 2, 3, 4, Guidance for Acquisition of Training Data Products and Services.

## **3.3.9 COMPUTER RESOURCES SUPPORT**

**3.3.9.1 Introduction.** Computer resources support is the process of selecting computer hardware, software, and firmware and planning for the life cycle support of each. The computer resources element exists primarily to decrease the life cycle costs of automated systems through the standardization of hardware, software and firmware. This goal must be balanced against the goal of selecting hardware, software, and firmware that optimize system performance.



### **3.3.9.2    Process**

(a) Planning for the development, acquisition and support of the computer hardware, software, and firmware must begin concurrently with the program planning.

(b) Each tactical data system or other system acquisition which includes computer resources, shall have a designated Software Support Activity (SSA). The SSA shall be designated by Milestone I of the acquisition. The SSA will participate in software and hardware design reviews. When another service or activity is designated as the SSA, a memorandum of agreement which assigns specific responsibilities should be developed between MARCORSYSCOM and the other service or activity.

(c) The Marine Corps weapon systems/equipment software components will follow the guidance of DoD-STD-2167A, DoD-STD-2168, MIL-STD-973 and MIL-STD-1521B. Specific attention must be given during acquisition and logistic planning for:

(1) SSA participation in IPTs, hardware, software, and system interface design reviews.

(2) Definition of deliverable and non deliverable software components and associated technical documentation and system manuals for the:

- a. Control of Developmental Item (DI) software.
- b. Control and configuration management of commercial off-the-shelf NDI software.
- c. Control and configuration management of non-commercial off-the-shelf NDI software.
- d. Control and configuration management of System Interfaces between DI and commercial and non-commercial NDI software components.

(3) Identification and definition of software developmental tools that will be required for software maintenance and supportability by the SSA including test program sets, Built In Test (BIT), Built In Test Equipment (BITE), and any test input data.

(4) Identification of the hardware and software (including firmware) SSA support environment, including any special hardware requirements such as graphic displays, communications, or testing devices. (The desired source of computer hardware is the MARCORSYSCOM C4I approved Marine Common Computer Hardware products).

(5) Provision for the delivery of technical documentation as hard copy and on magnetic media and the hardware and/or software required to support this type of information transfer.

(6) Ensuring that all documentation (DI, NDI, and system interfaces) are in accordance with current military hardware and software guidance.

(7) Addressing the maintainability and supportability issues concerning data rights and proprietary data, third party vendors, and second source acquisition for each Computer Software Configuration Item (CSCI).

(8) Identifying the prerequisites or criteria for classifying software as NDI; i.e., reliability, degree of stress testing, maintainability, known errors, longevity of use, configuration control, and base lining techniques.

### **3.3.9.3 Responsibilities**

(a) The CMC is responsible for Mission-Critical Computer Resources (MCCR) policy within the Marine Corps. DC/S I&L is the functional manager for all Logistics AIS.

(b) The CG MCCDC is responsible for designating a system as mission critical or non mission critical in the ORD. The ORD designation of mission criticality is used to guide the identification of equipment for inclusion in Marine Corps Bulletin (MCBUL) 3000 (Readiness Reportable Equipment).

(c) The PM is responsible for designating an SSA by Milestone I and for obtaining COMMARCORSYSCOM concurrence in that designation. When nonstandard computer hardware or software is proposed for use, the PM is responsible for requesting approval to deviate from the use of standard computer hardware and software. Those requests shall be submitted in writing to MARCORSYSCOM (C<sup>4</sup>I, CCR).

(d) MARCORSYSCOM (C<sup>4</sup>I) is the MCCR LEM and is responsible to provide technical guidance and/or support to the MARCORSYSCOM PM on MCCR issues. PM Common Computer Resources is also responsible for reviewing and approving or disapproving requests for waivers and/or deviation from the use of standard computer hardware.

(e) The Commanding Officer, MCTSSA is the APM for Software, supporting each of the Program Managers from Concept Formulation through Post Deployment Support for assigned programs. As the designated APM for software MCTSSA provides the software support LEM and is responsible for:

(1) Providing technical guidance and/or support to the MARCORSYSCOM PMs and MARCORLOGBASES on software matters including those relating to the software portion of firmware.

(2) Producing approved firmware revision masters in addition to providing and supporting those changes.

(3) Assessing software supportability as part of the logistics appraisal process.

(f) MARCORLOGBASES is responsible for the provisioning and fielded system support of computer hardware.

#### **3.3.9.4     Reference Directives**

- (a) SECNAV INST. 5000.2B.
- (b) DoD-STD 2167A.
- (c) DoD-STD 2168.
- (d) MIL-STD-973.
- (e) MIL-STD-1521B.

#### **3.3.10     Facilities**

**3.3.10.1     Introduction.** The facilities element includes the facilities needed to operate and maintain a system, and any training buildings or ranges, depot facilities, storage facilities (including secure storage and ammunition storage), housing facilities for personnel required to support the system, and utilities associated with all of the facilities. Facilities planning is the process of translating assigned missions, tasks, and functions into facilities requirements and then comparing requirements with assets to identify deficiencies or excesses. Facilities planning must also include plans to correct the deficiencies and excesses. The time period to program facilities is lengthy (normally 5 to 7 years). Funding is provided under the Military Construction (MILCON) appropriation.

**3.3.10.2     Process.** There are very few changes that can be made within the Marine Corps in terms of people, equipment, organization, and missions that do not have an impact on facilities. Lack of proper planning often results in adverse conditions when these changes are made without facilities in place. Planning must begin very early if facilities are to be provided in a timely manner. The ILSO, assisted by the facilities LEM, must determine the facilities requirements for new weapon systems/equipment. The impact on the existing facilities must be assessed. If facilities are required or existing facilities must be modified, the additional requirements must be added to the appropriate activities Facilities Support Requirements (FSR) planning document. Modifications to the FSR must be submitted to the CMC (LFL). The activity (installation or base) that requires new or changed facilities will then submit a MILCON project. This project will compete for funding with other construction projects throughout the Marine Corps. The only other course of action to program for the facility requirements is to include the requirements as part of the system acquisition buy in the initial POM process.

#### **3.3.10.3     Responsibilities**

(a) The CMC (LFL) is responsible for facilities policy within the Marine Corps. LFL is also the facilities LEM and is responsible for providing technical guidance and/or support to the program office on facilities, budget, and data requirements; for ensuring facilities are adequately

addressed in all requirements documents and specifications; and for developing and publishing the FSR.

(b) The Marine Corps activity (installation or base) that requires new or changed facilities in order to field a system is responsible for developing and submitting a MILCON project to acquire or change the facilities.

**3.3.10.4 Reference Directive.** MCO P11000.12, Real Property Facilities Manual, Vol. II: Facilities Planning and Programming.

### **3.3.11 PACKAGING, HANDLING, STORAGE, & TRANSPORTATION (PHS&T)**

#### **3.3.11.1 Packaging, Handling, Storage, and Transportation**

##### **(a) Packaging, Handling, and Storage**

(1) Introduction. Packaging, Handling, and Storage (PHS) is the process to ensure that the system and support items are adequately protected from the environmental hazards to which they will be exposed while in transit and during storage prior to their use. Through PHS, any special handling equipment and/or procedures are identified, acquired or developed, fielded, and any special storage requirements are identified and implemented. PHS also includes such issues as decontamination, environmental controls, and disposal of packaging materials.

(2) Process. PHS concepts and constraints must be defined early in the acquisition process and incorporated into the system design. Acquisition planning must ensure that any slings, fixtures, or other special handling equipment can be acquired and supplied in a timely manner. As maintenance concepts and equipment design are defined, planning for storage begins. This planning includes identifying and specifying the storage environment, the space requirements, the special handling equipment required during storage, preservation and packing requirements for each item to be delivered under the contract, and the periodic maintenance required at each maintenance level. The specific PHS requirements should be identified in the hardware contractor's packaging management plan.

##### **(3) Responsibilities**

- a. The CMC (LPP) is responsible for PHS policy within the Marine Corps.
- b. The MARCORLOGBASES is the PHS LEM and is responsible for providing technical guidance and/or support to the PM on those matters, and for ensuring PHS is adequately addressed in all requirements documents and specifications.
- c. The MARCORLOGBASES is responsible for packaging, handling, and storage of fielded equipment and spare and/or repair parts.

##### **(4) Reference Directives**

- a. MCO 4030.33, Packaging of Materiels.
- b. MCO P4030.36, Marine Corps Packaging Manual.
- c. MIL-STD- 2073-1, DoD Standard Practice for Military Packaging.

(b) Transportation

(1) Introduction

a. Transportation can be defined as the means by which the equipment is moved or conveyed. Transportation can be broken into three general modes: land, water, and air. Each of these areas can be further defined by the various types of transport (such as truck, barge, aircraft, etc.). DoD policy requires that systems and equipment be of such gross weight and dimensions that it can be handled and moved by existing or planned commercial and/or military transportation assets. Transportability of equipment by required transport modes will be verified by test, analysis, or analogy before the equipment is procured, with safety being a primary transportability objective. The most commonly used modes of transportation for the military are rail, highway, water, air, and pipeline. Rail transportation is an excellent means for mass movement of heavy materiel that can reach most areas of the country. Items must be packaged and braced to resist the shock of "bumping" at freight yards, sudden stops and starts, and vibration during shipment. Since all shippers and receivers do not have railheads, additional handling at the rail terminal is usually required.

b. Items procured by the Marine Corps may be utilized or positioned in strategic locations in the Continental United States (CONUS) or outside CONUS locations. Transportation of needed items assures that our CONUS installations and forward deployed units are provided with proper supply levels. Replenishment actions, such as depot level maintenance, depend on transportation to move equipment/items from field sites to repair sites. New weapon systems/equipment, ammunition, and personnel all rely on various modes of transportation to ensure positioning in locations where they are needed.

(2) Process. Transportation planning must ensure that the planned mode(s) of transportation are in conformance with program schedules and priorities. This planning must also ensure that other requirements such as preservation, packing, marking, shipping dimensions, hazard precautions, and security considerations are developed in accordance with the planned mode of transportation and any secondary or emergency modes that may apply.

(3) Responsibilities

a. The CMC (LFT) is responsible for transportation policy and the transportation budgeting within the Marine Corps.

b. MARCORLOGBASES is the transportation LEM and is responsible for providing technical guidance and/or support to the MARCORSYSCOM PM on transportation, and data requirements, and is responsible for ensuring transportation is adequately addressed in all requirements documents and specifications.

c. The program office coordinates with MARCORLOGBASES and CMC (LFT) to ensure that transportation requirements and constraints are included in the appropriate acquisition and logistics documents and initial transportation funding requirements are included in the program's POM and budgets.

(4) Reference Directives

- a. MCO P4600.7, Marine Corps Transportation Manual.
- b. DoD 4500.9R, Defense Transportation Regulation Part II Cargo Movement.

### **3.3.11.2 Transportability**

(a) Introduction. Transportability is the ability to move weapon systems/equipment and their logistics support through any means such as railways, highways, waterways, pipelines, oceans, and airways. Full consideration of available and projected transportation assets, mobility plans and schedules, and the impact of system, equipment and support items on the strategic mobility of operating military forces is required to achieve this capability. This process is also important in shipment and contingency planning.

(b) Process. Transportability is a major consideration in system design. The required type of transportation, together with any special requirements for Naval amphibious and maritime pre-positioning, strategic or tactical transport must be identified in the system specifications and requirements documents. Factors such as the weapons systems width, length, height, and weight; the highway load limitations; the aircraft cargo limitations; and the size of rail tunnels and bridges must be taken into consideration as part of the system design. The system must be designed and constructed so that it can be rapidly and effectively moved to any place in the world by available modes of transportation and support mission requirements outlined in the Mission Need Statement (MNS) and ORD.

(c) Responsibilities

(1) The CMC (LPO) is responsible for transportability policy within the Marine Corps.

(2) MARCORSYSCOM (PSE) is the transportability LEM and is responsible for providing technical guidance and/or support to the PM on those matters.

(d) Reference Directive. MCO P4610.14, DoD Engineering for Transportability.

### **3.3.12 DESIGN INTERFACE**

#### **3.3.12.1 Reliability, Availability and Maintainability (RAM)**

(a) Early in a system's life cycle, design influence is the means to ensure that the system is developed (or in the case of a NDI, selected) to reduce the logistics burden on the Marine Corps while at the same time meeting the critical performance characteristics. Reliability, Availability and Maintainability (RAM) is a measure of system effectiveness. As part of the systems engineering process, all facets of equipment performance must be evaluated with respect to each other and with respect to system cost. RAM is one of the elements which undergoes this tradeoff process. The resulting RAM requirements will influence or drive the design of the equipment. The RAM requirements and the effectiveness of the design in meeting those requirements will impact on other analytical tools. Ultimately, the reliability of the system will have a direct effect on logistics support elements such as supply support, support equipment, maintenance planning, and manpower planning.

(1) Reliability is a fundamental characteristic of a system expressed as the probability that the system will perform its intended function for a specified period of time under actual operational conditions. Reliability is normally stated in terms of Mean Time Between Failure (MTBF) (e.g., miles, operating hours, rounds, etc.)

(2) Maintainability is normally specified in terms of Mean Time To Repair (MTTR), and other indices, such as Maintenance Man Hours per Operating Hour (MMHOH). It provides a measure of the ability of an item to be retained in or restored to specific conditions when maintenance is performed by personnel having specified skill levels, using prescribed procedures and resources at prescribed echelons of maintenance and repair.

(3) Availability is the percentage of time an item is in a mission ready status and is expressed as inherent availability ( $A_i$ ), achieved availability ( $A_a$ ), or operational availability ( $A_o$ ).  $A_i$  is the probability that an item, when used under stated conditions in an ideal support environment, will operate satisfactorily at any point in time.  $A_i$  does not take preventive or scheduled maintenance actions, logistics delay time, or administrative delay time into account.  $A_a$  is similar to  $A_i$  except it includes preventive maintenance time.  $A_o$  is the probability that an item, when used under stated conditions in an actual operational environment, will operate satisfactorily when called upon.

(b) Process. There are three major RAM taskings for acquisitions: definition, design, and evaluation. Definition of RAM begins with the development of mission requirements and mission profiles. The initial RAM thresholds and goals are put into the ORD. Based upon the mission profile, quantitative and qualitative RAM requirements are developed. These requirements are then used by the design activity to further describe the equipment's design. Reliability and maintainability models and predictions are used to evaluate equipment potential during the interactive design process. As reliability and maintainability weaknesses are identified in the design, they are analyzed and the equipment is further redesigned. As the design is refined, the activities assigned to perform development and operational test and evaluation confirm that the requirements have been met and/or identify any remaining deficiencies. After fielding, Product Quality Deficiency Reports (PQDR) (SF368) will be submitted per MCO 4105.2A and MCO

4855.10B, on premature equipment failures, and warranted items, which will allow monitoring of actual system reliability and maintainability. This is used as the basis for determination of new reliability and maintainability enhancements which can be made through Product Improvement Program (PIP) and for enforcing the system warranty.

(c) Responsibilities

(1) MARCORSYSCOM (PSE) is responsible for RAM policy within the Marine Corps. PSE is also the RAM LEM and is responsible for providing technical guidance and/or support to the PM on RAM issues, and for monitoring the reliability and maintainability performance of weapon systems/equipment.

(2) The CG MCCDC is responsible for developing specific RAM requirements in conjunction with the MARCORSYSCOM PM. The CG MCCDC publishes the ORD which is the source document for RAM performance requirements for Marine Corps weapon systems/equipment.

(3) The development test activity (normally the development contractor) is responsible for evaluating RAM performance during development testing.

(4) The operational test activity is responsible for evaluating RAM performance during operational testing.

(5) MARCORLOGBASES is responsible for processing PQDRs submitted by the users. (PQDR screening point/PQDR action point).

(d) Reference Directives

(1) MCO 4855.10B, Product Quality Deficiency Report Program.

(2) MCO 4105.2A, Marine Corps Warranty Program.

### **3.3.12.2 Environmental, Safety and Health (ESH)**

(a) Introduction. ESH is the application of engineering and management principles, criteria and techniques to optimize ESH within the constraints of operational effectiveness, time, and cost throughout all phases of the system life cycle.

(b) Process. ESH analysis is conducted for each system acquisition to integrate ESH issues in the system engineering process. The ESH analysis contains the following elements:

(1) National Environmental Policy Act.

(2) Environmental Compliance.

(3) System Safety and Health.



- (4) Hazardous Materials (HAZMAT).
- (5) Pollution Prevention.
- (c) Responsibilities
  - (1) MARCORSYSCOM (PSE) is responsible for ESH within the Marine Corps. PSE is also the ESH engineering LEM and is responsible for providing technical guidance and/or support to the PM, and for developing and monitoring the system safety programs.
  - (2) The MARCORSYSCOM PM is responsible for ensuring ESH goals and objectives are met for each acquisition and including them in the acquisition/logistics documents. The PM is required to obtain a safety release prior to conducting any tests involving Marine Corps personnel as well as a safety certification prior to issuing any equipment to the Fleet.
  - (3) The MARCORSYSCOM Director, Program Support reviews and endorses the safety certification for non-ammunition items. The MARCORSYSCOM Program Manager for Ammunition (PM-AM) reviews and endorses the safety release testing and safety certification for ammunition items.
  - (4) DC/S I&L (LF) will provide support to MARCORSYSCOM in assessing and evaluating methods to minimize environmental impacts and costs attributable to hazardous materiel requirements and hazardous waste generation, in the development, test, production, use, maintenance, and disposal of a weapon system.
- (d) Reference Directive. Environmental, Safety and Health Guide (Number not assigned).

### **3.3.12.3 Maintenance Engineering (ME)**

- (a) Introduction. ME is a method of ensuring that weapon systems/equipment will be ready for operation, consistent with mission requirements. The maintenance engineering discipline is the application of engineering skills and efforts to ensure that the design and development of weapon systems/equipment provide for effective and economic maintenance. Equipment maintenance can be broken down into two distinct categories: Corrective maintenance which is the repair of equipment that fails due to unscheduled and random defects; and preventive maintenance which is performed in an attempt to retain an item in a specified condition by providing systematic inspection, detection, and prevention of incipient failure.
- (b) Process. Maintenance engineering is used to coordinate the maintenance policy, the maintenance concept, and the maintenance plan. Maintenance engineering will implement maintenance policies by developing criteria and technical requirements for maintenance of equipment during the CE through the E&MD phase of the acquisition process. The maintenance engineering process will then apply and maintain these concepts, criteria, and technical requirements during the production, deployment, and operational phases. Maintenance engineering management uses a LORA to analyze maintenance alternatives.

(c) Responsibilities. The program office is responsible for ensuring that maintenance engineering is accomplished during an acquisition. This is accomplished through maintenance engineering management which is the process of identifying, planning, organizing, staffing, directing, and controlling those maintenance resources required for system support during the development, deployment, and operational phases of the acquisition process.

**3.3.12.4 Electromagnetic Environmental Effects Control Program (E<sup>3</sup>CP).** The electromagnetic environment in which military systems must operate is created by a multitude of sources. Primary contributors are intentional, unintentional, friendly, and hostile emitters. Electromagnetic pulses, atmospheric, solar and galactic emissions, lightning, and the like, are some of the other sources. The contribution of each emitter to the environment may be described in terms of its technical characteristics, such as power, modulation, frequency, bandwidth and so forth. Effects depend on the receiver's characteristics, relative locations of emitters and receptors, operational concepts, and so forth. Electromagnetic effects can adversely affect all electronic electro-optical, electrical and electromechanical equipment and systems, personnel, fuels, and weapons.

(a) Introduction. The E<sup>3</sup>CP has three major objectives.

- (1) Identify and assess E<sup>3</sup> problems in the Marine Corps.
- (2) Assist the MARFORs in correcting existing E<sup>3</sup> problems.
- (3) Assist acquisition managers in controlling E<sup>3</sup> in new equipment.

(b) Process. The E<sup>3</sup>CP begins at MS 0 and is to be applied by procuring agencies and by development and operations activities at appropriate times during the life cycle of the system. E<sup>3</sup>CP is applied to any system which can be susceptible to electromagnetic energy. Electromagnetic Compatibility (EMC) is the ability of a system or equipment to operate within design tolerances in its intended environment, with adjacent systems and equipment, and/or by itself. EMC can be achieved through proper design, development, test and production methods, accepted installation practices and life cycle maintenance and support. To be effective, the design methodology must provide a clearly defined, coherent approach for preventing electromagnetic problems and for achieving the required EMC. Normally, EMC will not be attained unless these aspects are emphasized by management in an EMC program established early in the conceptual and design phases of equipment and weapon systems/equipment.

(c) Responsibilities

(1) MARCORSYSCOM (PSE):

- a. Ensures that E<sup>3</sup> preventive measures are addressed in the ORD.
- b. Ensures translation of E<sup>3</sup> requirements into appropriate SOW's and/or Equipment Specifications for Engineering and Manufacturing Development and Production contracts.

- c. Ensures that a waiver accompanies any deviation from E<sup>3</sup> preventive measures.
- d. Provides overall E<sup>3</sup> program leadership, guidance, direction and coordination.
- e. Funds for technical support of the E<sup>3</sup> program.
- f. Interfaces with other DoD agencies on E<sup>3</sup> matters.
- g. Recommends procurement of appropriate test equipment for effective E<sup>3</sup> control.
- h. Ensures translation of E<sup>3</sup> requirements into training standards for training of all operators, repairers and supervisors of communications-electronic systems.
- i. Coordinates with MCCDC to reflect E<sup>3</sup> control responsibilities for appropriate military occupational specialties.

(2) MARCORLOGBASES:

- a. Provides technical management of the program and technical assistance to MARCORSYSCOM PMs in ensuring that electromagnetic environmental effects are considered in equipment acquisitions and modifications.
- b. Provides technical assistance to MARCORSYSCOM in the identification and acquisition of test, measurement, and diagnostic equipment to be used for E<sup>3</sup> control.
- c. Ensures proper E<sup>3</sup> control procedures are used in all depot repair/rebuild activities.

**3.3.12.5 Reference Directives**

- (a) MCO 2410.2, E<sup>3</sup>CP.
- (b) DoDD 3222.3, DoD Electromagnetic Compatibility Program.

**3.4 RELATED SUPPORTABILITY DISCIPLINES.** In addition to acquiring and integrating the principal logistics functional areas, the related disciplines described in the following paragraphs of this chapter must also be integrated to develop a complete logistics program.

### **3.4.1 WARRANTY**

#### **3.4.1.1 Introduction**

(a) Methods of applying warranties are covered in Federal Acquisition Regulations (FAR) clauses, the DoD and SECNAV instructions. MARCORSYSCOM typically applies warranty FAR clauses on all contracts. The methods and types of warranty should be referenced and considered part of all maintenance planning initiatives. This information is documented in the ILSP and Users Logistics Support Summary (ULSS). MARCORLOGBASES is responsible for administering warranties on each system.

(b) The Defense Procurement Reform Act of 1985 (Public Law 98-525) added Section 2403 to Title 10 of United States Code. This section requires the Department of Defense to obtain warranties in contracts for weapon systems awarded after 1 January 1985. Weapon systems are defined as "items that can be used directly by the Armed Forces to carry out combat missions and cost more than \$100,000 or for which the eventual total procurement cost is more than \$10,000,000." Only support equipment (ground handling equipment, for example), training devices, ammunition, and commercial items are specifically excluded. The law requires that the following specific types of guarantees be provided:

(1) Design and manufacturing requirement warranties which provide assurance that the product is designed and built as specified.

(2) Warranties against defects in materials and workmanship which are specifically designed to correct latent defects and ensure preventive actions are taken by manufacturers.

(3) Warranties which ensure conformance to essential performance requirements where performance is determined by measuring field reliability and/or maintainability over a period of time. These measurements must be performed in conjunction with a comparison of actual value versus guaranteed value.

(c) For the Marine Corps, warranties will generally be of two types: a performance assurance warranty in which the primary intent is to assure that minimum design, quality, and performance levels stated in the contract are achieved, or a failure-free warranty that requires a period of failure-free usage. The performance assurance warranty is preferred in most cases although failure-free warranties may be appropriate in acquisitions where an item's reliability is unknown or unspecified (particularly in the case of NDIs).

(d) The law allows for a waiver for all or part of the coverage requirements of the statute. The PM should request waivers from the Assistant Secretary of the Navy Research Development and Acquisition (RD&A) for warranties on weapon systems and equipment when the proposed warranty is not cost-effective or in the best interest of the Government. Defense Federal Acquisition Regulation (DFAR) Subpart 46.7 requires that a warranty cost-benefit analysis be conducted and documented in the contract file.

**3.4.1.2 Process.** The function of a warranty is to provide the Government with a remedy for a breach of contract by the contractor. A breach is the contractor's failure to meet the requirements

of the contract. MCO 4105.2 expressly forbids using warranties as a substitute for adequate and timely logistics support planning. Warranties are very expensive to acquire and enforce. Warranties increase the unit price, inhibit competition, add a tremendous administrative burden to the operators and maintainers of the system, increase life cycle costs for the system, and can decrease readiness due to lengthy downtime of equipment.

#### **3.4.1.3    Responsibilities**

(a) MARCORSYSCOM Director, Program Analysis and Evaluation is responsible for performing cost-benefits analyses of proposed warranty support in the form of a report.

(b) MARCORLOGBASES is responsible for:

(1) Issuing policy guidance and providing periodic training for the technical and statutory requirements of warranties for Marine Corps acquired items.

(2) Assigning WSM:

a. Serves as the warranty LEM.

b. Assists the PMs in preparation and tailoring of warranty clauses and requirements.

c. Promulgates warranty information to the field via the ULSS and includes the SI number and Publication Control Number (PCN) for the SI which contains the detailed warranty procedures.

(3) Serving as the warranty administrator.

(4) Development of the SOW and CDRL for collection of warranty costs.

(5) Processing PQDRs forwarded by the users through the PQDR Screening Point.

(c) All users of warranted equipment are responsible for processing PQDRs through the designated Warranty Coordinator when warranted equipment fails.

(d) All warranty Coordinators are responsible for processing Warranty PQDRs submitted by users and received from the PQDR Screening Point.

#### **3.4.1.4    Reference Directives**

(a) MCO 4105.2, Marine Corps Warranty Program.

(b) Defense System Management College (DSMC) Warranty Guidebook.

(c) MCO 4855.10B, PQDR Program.

### **3.4.2 POST PRODUCTION SUPPORT (PPS)**

**3.4.2.1 Introduction.** PPS consists of the management and support activities necessary to ensure continued attainment of readiness objectives with economical logistics support after deployment through the remainder of the equipment's life cycle. PPS planning shall be an integral part of the overall system planning process and will be based on the established support concepts and requirements.

#### **3.4.2.2 Process**

(a) PPS planning is a joint Government-contractor effort. PPS objectives are documented in the ILSP at the beginning of E&MD. The E&MD contract will require the contractor to include PPS considerations as part of the logistics tradeoff studies. A plan for PPS, which documents resource and management actions required to meet the established PPS objectives, shall be completed prior to the end of E&MD.

(b) PPS resource requirements and funding shall be included in POM initiatives.

(c) The adequacy of PPS planning will be a topic addressed at each acquisition milestone review beginning with the E&MD phase, and periodically throughout the life cycle of the weapon systems/equipment.

#### **3.4.2.3 Responsibilities**

(a) The CMC (LPP) is responsible for PPS policy within the Marine Corps.

(b) The PM is responsible for developing specific PPS objectives for each acquisition program. MARCORLOGBASES supports the PM by ensuring that PPS considerations are part of the tradeoff studies conducted during E&MD.

(c) MARCORLOGBASES is the PPS LEM and is responsible for providing technical guidance and/or support to the Program Office on PPS matters. The PPS LEM is also responsible for developing and maintaining the PPS portion of the ILSP based on the objectives developed by the PM.

#### **3.4.2.4 Reference Directives**

(a) MCO 4105.1, WS/E Support Management within the Marine Corps.

(b) DoD 5000.2-R, Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs.

### **3.4.3 AMMUNITION**

**3.4.3.1 Introduction.** With ammunition production lead-time varying from 13 to 47 months, ammunition needs of a new weapon system/equipment have to be programmed as early

as possible during budget and/or POM formulation to allow timing of deliveries to meet the delivery schedule of the system. Additionally, any test and evaluation requirements may require the use of currently fielded ammunition items and will need to be addressed early on to accommodate funding, transportation and availability to coincide with scheduled testing and locations. As a result, it is important to include the PM AM Office early on in the logistics planning, TEMP development, and Test Integration Working Group (TIWG) process to ensure program supportability.

#### **3.4.3.2 Responsibilities**

(a) MARCORSYSCOM (PM AM) is responsible for Ammunition planning and support to the Weapon System PM.

(b) CG MCCDC is responsible for development of the ammunition requirement that accompanies any system acquisition.

### **3.4.4 WEAPON SYSTEM SUPPORT PROGRAM (WSSP)**

**3.4.4.1 Introduction.** The WSSP is a Defense Logistics Agency (DLA) administered program which applies special management attention to specific Service-designated programs. This program is applicable to common class IX consumable repair parts managed by the DLA Supply Centers. The overall purpose of the WSSP is to enhance the readiness and sustainability of the military services by providing the maximum practical level of support for designated DLA managed items with system application.

**3.4.4.2 Process.** The Marine Corps participates in the WSSP to the fullest extent possible since the WSSP ensures a high level of logistics support for the most essential consumable items. This joint effort between the Marine Corps and the DLA concentrates on three major areas:

- (a) Consolidated logistics planning for the end item and repair parts.
- (b) Selection of weapon systems/equipment to be included in the WSSP.
- (c) Identifying all DLA-managed items having applicability to the selected weapon systems/equipment.

#### **3.4.4.3 Responsibilities**

(a) CMC (LPP) is responsible for assigning weapon system codes to all systems entering the Marine Corps inventory.

(b) The WSM is responsible for soliciting DLA support on IPTs and other program review/planning actions. This effort should be coordinated through the DLA Liaison Officer at MARCORLOGBASES.

(c) MARCORLOGBASES is the focal point for coordinating with the DLA on matters related to the WSSP.

**3.4.4.4 Reference Directive.** MCO 4105.1, Weapon System Management (WSM) within the Marine Corps.

### **3.4.5 CONFIGURATION MANAGEMENT (CM)**

**3.4.5.1 Introduction.** CM is a process by which system and equipment configuration baselines are established, controlled and maintained, thereby providing appropriate and accurate documentation in support of integrated logistics support functions and operations. The CM process is a joint effort between the design and/or production contractor, MARCORSYSCOM and MARCORLOGBASES. Detailed coverage of this logistics related element is contained in the MARCORSYSCOM Program Managers Configuration Management (CM) Handbook.

#### **3.4.5.2 Process**

(a) CM is implemented early in the development cycle and continues throughout the system life cycle, to:

- (1) Identify, document and verify the functional and physical characteristics of a configuration item;
- (2) Control changes to an item and its documentation;
- (3) Record the configuration of actual items; and
- (4) Audit the configuration item and its configuration identification.

(b) The four basic elements of CM are Configuration Identification, Configuration Status Accounting, Configuration Control, and Configuration Audits.

(1) Configuration identification includes the selection of Configuration Items (CI); the determination of the types of configuration documentation required for each CI; the issuance of numbers and other identifiers affixed to the CI's and to the technical documentation that defines the CI's configuration, including internal and external interfaces; the release of CIs and their associated configuration documentation; and the establishment of configuration baselines for CIs.

(2) Configuration Status Accounting (CSA) is the recording and reporting of information needed to manage configuration items effectively, including:

- a. A record of the approved configuration documentation and identification numbers.
- b. The status of proposed changes, deviations, and waivers to the configuration.



- c. The status of approved changes.
- d. The configuration of all units of the configuration item in the operational inventory.

(3) Configuration Control establishes procedures for the control and identification of all changes to an established configuration baseline (hardware and software).

(4) Configuration Audits are conducted to:

- a. Ensure that all operational, environmental and interface requirements of the system and equipment have been demonstrated and validated, meeting stated required operational capabilities and specification requirements.

- b. Ensure that the "as-built" hardware dimensional and physical characteristics as well as executable software meet the requirements of the technical engineering drawings and specifications.

(c) The execution of configuration management is divided between MARCORSYSCOM and MARCORLOGBASES as follows:

(1) Prior to "fielding" MARCORSYSCOM has primary responsibility for CM. As such MARCORSYSCOM is the approval authority for all ECPs. The MARCORLOGBASES is a voting member of the MARCORSYSCOM Configuration Control Board (CCB).

(2) After "fielding" the MARCORLOGBASES assumes primary responsibility for configuration management. As such, the Weapon System Manager at MARCORLOGBASES becomes the approval authority for all ECPs that do not change the operational capabilities of the Principal End Item (PEI) and/or do not require performance of the engineering or testing functions identified in DoD 5000.2-R. The MARCORSYSCOM is a voting member of the MARCORLOGBASES (CCB).

### **3.4.5.3 Responsibilities**

(a) MARCORSYSCOM (PSE) is responsible for CM policy within the Marine Corps. PSE is also the CM LEM and is responsible for providing the technical guidance to the MARCORSYSCOM PM and APML in the areas of configuration identification, control, and audit. PSE also serves as the CCB Secretariat.

(b) MARCORSYSCOM (PM) chairs the CCB during the acquisition phase.

(c) MARCORLOGBASES is the CSA LEM and is responsible for providing technical guidance on CSA requirements. MARCORLOGBASES is also responsible for providing all CM-related requirements for those acquisition programs under the cognizance of COMMARCORLOGBASES.

(d) The designated SSA will provide software related CM requirements.

- (e) MARCORLOGBASES (WSM) chairs the CCB after fielding.

#### **3.4.5.4 Reference Directive**

- (a) DoD 5000.2-R.
- (b) MARCORSYSCOM Program Managers Configuration Management (CM) Handbook.

### **3.4.6 CONTINUOUS ACQUISITION AND LIFE-CYCLE SUPPORT (CALS)**

**3.4.6.1 Introduction.** CALS is a joint DoD and/or industry strategy to enable the integration and rapid exchange of digital technical information for system design, development, acquisition and support. One of the primary thrusts of CALS is to automate the generation, delivery, and use of digital technical information over a system's life cycle. Digital technical information is a key resource that needs to be managed in a coordinated fashion. The CALS initiative is designed to provide readily accessible, integrated, and customized digital technical information that will enable efficient acquisition, operations, and logistic support. In accordance with DoD 5000.2-R, all new contracts will require on-line access to, or delivery of, their programmatic and technical data in digital form, unless analysis shows that life-cycle time or life-cycle costs would be increased by doing so. Preference will be given to on-line access to contractor developed data through contractor information services rather than data delivery. No ongoing contract, including negotiated or priced options, will be renegotiated solely to require the use of digital data, unless analysis shows that life-cycle costs are reduced. Assistance in evaluating and implementing CALS requirements should be coordinated with PSL and should be documented in Program Management Plans, Contracts, and the ILSP. It is important to note that recent guidance from the Deputy Secretary of Defense directs that all programs by the year 2002 be fully digitized. DoN's implementing guidance is being considered and will be available in the near future.

#### **3.4.6.2 Responsibilities**

The Director, Program Support (PS) is responsible to:

- (a) Coordinate all aspects of the developmental efforts for the MARCORSYSCOM CALS environment.
- (b) Maintain contact with the DoD, DoN, and HQMC with relationship to their CALS efforts.
- (c) Monitor Joint Service programs and CALS implementation efforts.
- (d) Ensure that the digitized technical manuals meet the user's requirements.
- (e) Ensure that the digitized data meets user's requirements and that contractual requirements of the specifications and standards reform efforts are met.

(f) Provide input to PSL-CALS as to the adequacy and possible enhancements to the CALS processes.

### **3.4.7 MILITARY SPECIFICATIONS AND STANDARDS PROGRAM**

(a) The Secretary of Defense signed a 29 June 1994 policy memorandum entitled "Specifications and Standards - A New Way of Doing Business". In the memorandum, Dr. Perry directed that the services implement specific recommendations of the DoD Process Action Team (PAT) on Specifications and Standards. MARCORSYSCOM was designated the focal point for the program within the Marine Corps and given the responsibility of appointing the Command Standards Improvement Executive (CSIE). The PS Directorate (Code PSE), having responsibility for the majority of the Marine Corps standardization documents, has been delegated day-to-day execution and/or implementation of the program.

(b) The Military Specifications and Standards Program encourages greater reliance on existing commercial items, practices, processes, and capabilities while ensuring that Government interests are maintained. The program includes rewriting military-unique specifications into performance specifications, canceling unneeded documents (non-value added), revalidating or revising management and manufacturing standards, and converting all other documents to Non-Government Standards (NGS).

**3.4.8 LOGISTICS FUNDING.** The resources required to conduct logistics planning and support and achieve minimum readiness standards should receive the same emphasis as those required to achieve cost, schedule and performance objectives. In addition, the resource requirements necessary to design supportability characteristics into the system and to plan, develop, acquire, and evaluate logistics support shall be funded at a level sufficient to meet stated operational requirements. To that end, logistics resource requirements shall be identified and integrated into each of the acquisition program's POM and/or budget submissions.

## CHAPTER 4

### MATERIEL RELEASE AND FIELDING

Material release begins the transition from acquisition to the operational support phase of a system's life cycle. It is the process through which a system is evaluated for fielding to the operating forces.

**4.0 Purpose.** The purpose of the materiel release process is to ensure systems are safe, operate as designed, and are logistically supportable before being fielded to the operating forces. This includes ensuring manpower and personnel, training, publications, spare and repair parts, maintenance, testing, and funding issues have been resolved or provisions for their resolution have been made prior to materiel release. This process provides a mechanism to monitor, control, and monitor releases until a full release is achieved.

**4.1 Applicability.** The materiel release process is applicable to all systems (including developmental items, commercial items, and NDIs) and initial or major software releases except for the following:

- (a) Materiel procured with non-appropriated funds;
- (b) Individual combat clothing;
- (c) Supply class V;
- (d) Supply class VIII;
- (e) Follow-on procurements of systems whose physical and performance characteristics are unchanged;
- (f) Systems already in-service.

(Note: Subsequent or minor software upgrades/releases are not subject to the Materiel Release and Fielding Process.)

### 4.2 Policy

(a) Conceptual framework for Materiel Release and Fielding Decision. The Marine Corps has established a formal release and fielding process in order to ensure that only operationally suitable and logistically supportable materiel is released to the operating forces. The conceptual framework for this process is portrayed in Figure 4.1. The process commences prior to the Milestone III decision, and is supported by independent program assessments that result in an Acquisition Decision Memorandum (ADM) which includes exit criteria for the fielding decision. These exit criteria forms the basis for subsequent materiel release and fielding actions in order to prepare for a "formal" Fielding Decision. The Fielding Decision is documented by a Fielding Decision Memorandum which then becomes the authority for all subsequent materiel release and

# **Conceptual Framework for Materiel Release and Fielding Decision**

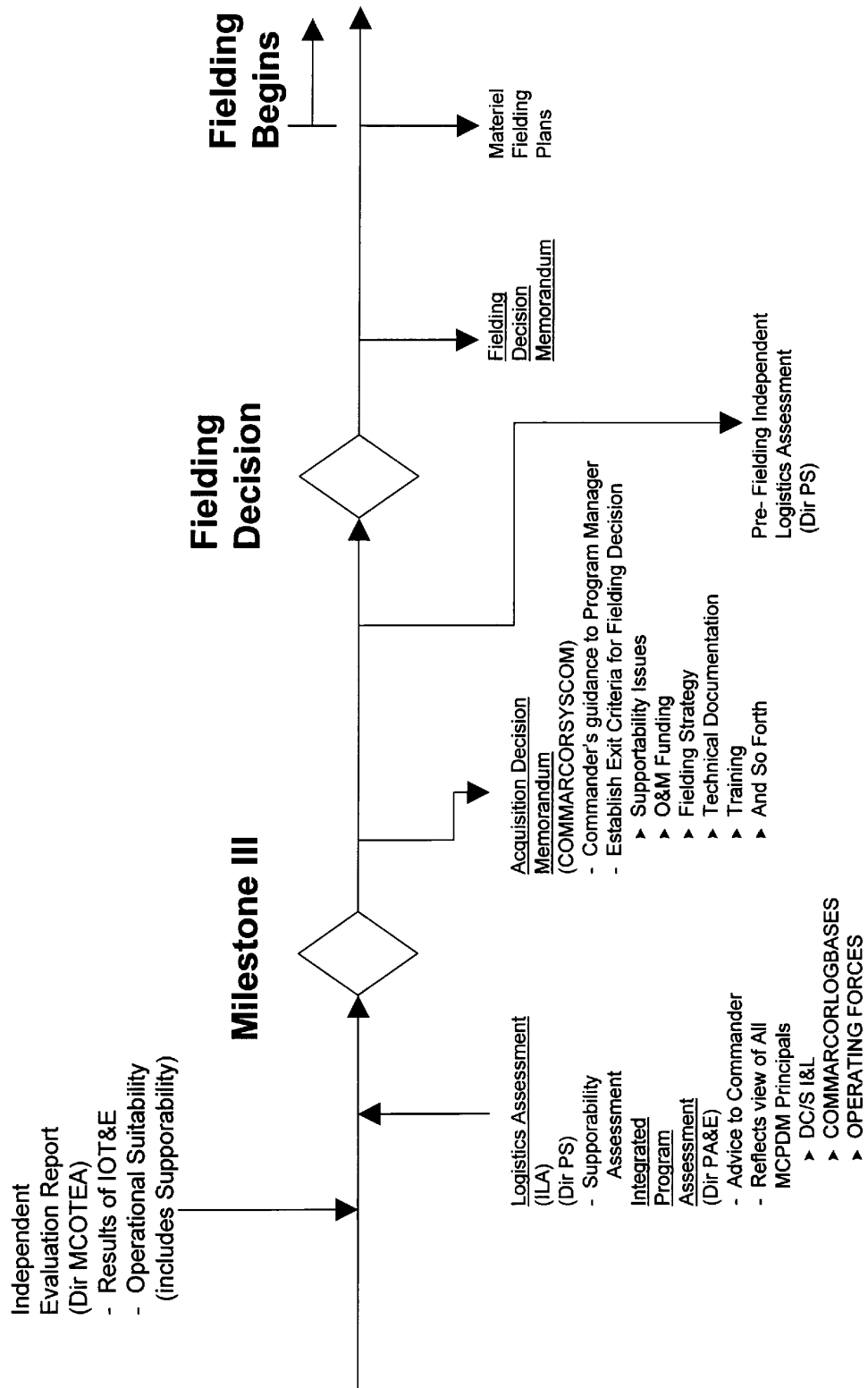


Figure 4.1

fielding actions. Subsequent paragraphs provide details of this materiel release and fielding process.

(b) Systems proposed for release remain under the control of the PM or the PM's designated agent until the release approval is granted by the MDA and the logistics support has transitioned. A system may be prepositioned with the gaining command with the approval of COMMARCORSYSCOM and the appropriate COMMARFOR. For systems containing explosives, the explosive component cannot be prepositioned until a final hazard classification is granted by COMMARCORSYSCOM (PM AM).

**4.3 Types of Materiel Release.** There are three categories of materiel release which permit fielding of a system. The three categories of releases are explained below.

**4.3.1 Full Release.** Full release indicates that the system has been deemed safe, fully supportable, and ready for fielding to all authorized organizations.

(a) A full release is authorized only when all of the following conditions are met:

(1) The system has been tested and evaluated and meets the requirements documents and specifications as articulated in the ORD.

(2) The MARFORs have concurred in the final draft ULSS indicating their agreement with supportability concepts and delivery schedules.

(3) All logistics support requirements have been met.

(4) The COMMARFOR(s) and CG MCCDC concur that the gaining commands are staffed to operate and maintain the systems.

#### **NOTE**

The use of ICS in lieu of organic support or CLS will not preclude full release of the system.

(b) Approval for full release is granted by COMMARCORSYSCOM. The approval is based on a recommendation from the decision principals (CG MCCDC, COMMARCORLOGBASES, and the COMMARFOR(s) receiving the system). A copy of the Materiel Release Decision Memorandum is provided to the DC/S I&L, CG MCCDC, the COMMARFORs, and COMMARCORLOGBASES.

**4.3.2 Conditional Release.** A conditional release indicates that one or more of the criteria for a full release cannot be met, however, limited quantities of the system may be fielded due to a VALIDATED URGENT OPERATIONAL NEED.

(a) Approval for conditional release is granted by COMMARCORSYSCOM. The decision is based upon a valid urgent operational requirement; the COMMARFOR's acceptance

of the initial shortfalls in support for the product, and concurrence from the MCPDM principals. A copy of the Materiel Release Decision Memorandum is provided to the DC/S I&L, COMMARFORs, and COMMARCORLOGBASES.

(b) The PM develops a "get-well" plan for each condition that prevents a full release. The plan describes the circumstances of the release and specifies the projected get-well date and the means of correcting any problems.

**4.3.3 Training Release.** A training release is the release of a system to formal schools or training activities for training purposes. A system designated for use by the operating forces in training exercises for field deployment must obtain a separate full or conditional release.

(a) Prior to approval for training release, the PM ensures that critical issues such as safety, availability of spare and/or repair parts, technical documentation, responsibility for maintenance support, and any other conditions that limit the use of the system are identified and accepted by the training organization.

(b) Approval for a training release is granted by COMMARCORSYSCOM based on concurrence from decision principals. A copy of the Materiel Release Decision Memorandum is provided to the DC/S I&L, CG MCCDC, the COMMARFORs, and COMMARLOGBASES.

#### **4.4 Procedures for Materiel Release**

(a) The PM is responsible for initiating the request for materiel release approval at least 120 days (4 months) prior to the planned materiel fielding date. The request, along with the draft ULSS, is submitted to COMMARCORSYSCOM. Enclosure (1) to Appendix (E) contains a sample materiel release request.

(b) The following requirements must be met to obtain full release approval. Failure to meet the requirements will result in a conditional release.

(1) Any ORD requirement (i.e., performance, reliability, availability, maintainability, quality, etc.) not verified and approved at MS III must have been met. Results of follow-on tests directed at MS III provided to verify these requirements have been met. Any ORD requirements that will not be met by the new system are documented in an enclosure to the Materiel Release Approval Request.

(2) The system has received the appropriate safety release, Weapons System Explosive Safety Review Board (WSESRB) approval, and health hazard assessment. Copies of the safety certification and WSESRB approval documentation will be made available for verification. (WSESRB approval is only required if the new system is introducing a new ammunition item that will be transported or stored on naval ships or shore activities; and the item is unique to the Navy and will not be safety certified by another service.)

(3) The system complies with environmental laws and regulations. Materiels and processes that are considered potentially hazardous or have a potential environmental impact (i.e.,

batteries; items requiring approved storage, handling or disposal procedures; painting requirements; cleaning fluids or processes; etc.) have been appropriately identified and coded. Statements are available from the appropriate HAZMAT and Environmental offices indicating that environmental requirements, including environmental laws have been satisfied in all states and counties where the system will be operated and maintained.

(4) The gaining command(s) concur in the ULSS. The PM attempts to correct any deficiencies causing a nonconcurrency. If the deficiency cannot be corrected, the PM will provide a copy of the nonconcurrency and rationale to the materiel release approval authority as part of the materiel release request.

(5) Logistics supportability from DC/S I&L, MARCORSYSCOM (PS) and MARCORLOGBASES is available. A statement of supportability should clearly articulate whether all aspects of logistics support have been successfully planned and implemented, and that an independent logistics assessment has been completed.

(6) When applicable, acquire a statement of software supportability from MCTSSA for all software required to operate and maintain the system.

(7) When necessary, acquire a statement of supportability from MARCORSYSCOM PM Explosive Ordnance Disposal (EOD) procedures, tools and equipment. This statement will verify that the render safe and disposal procedures are available or will be available when the system is fielded.

(d) Upon completion of all corrective actions required for conditional release, the PM will submit a request for full release in accordance with paragraph 4.4.(b)(1) above.

**4.5 Materiel Release and Fielding Status Reports.** COMMARCORSYSCOM (PSL) issues the Materiel Release and Fielding Status Report on a quarterly basis by message, E-mail, and display on the MARCORSYSCOM home page. These reports provide a forecast of systems scheduled for fielding. When it is anticipated that a program is within 90 days (3 Months) of fielding, it is included on the quarterly Materiel Release and Fielding Status Report. Only systems that are anticipated to be fielded within the report time frames are included. The report is provided to the COMMARFORs, COMMARCORLOGBASES, CG MCCDC, and DC/S I&L.

**4.6 Materiel Fielding.** Materiel fielding is the process of planning, coordinating and executing the orderly and effective deployment and transfer of systems and their support from the COMMARCORSYSCOM and/or COMMARCORLOGBASES to the Operational Forces.

The relationships among acquisition logistics documentation, ILAs, program milestone and the fielding decision are described in Figure 4.2. The iterative nature of the acquisition and logistics planning process results in a relationship among these activities and documents that builds as the program progresses. The documents are refined to meet the events that occur during the acquisition life cycle. ILAs are conducted prior to milestone III and support the actual fielding decision.



# RELATIONSHIP OF ACQUISITION LOGISTICS DOCUMENTATION, AND ILAs TO MILESTONE AND FIELDING DECISIONS

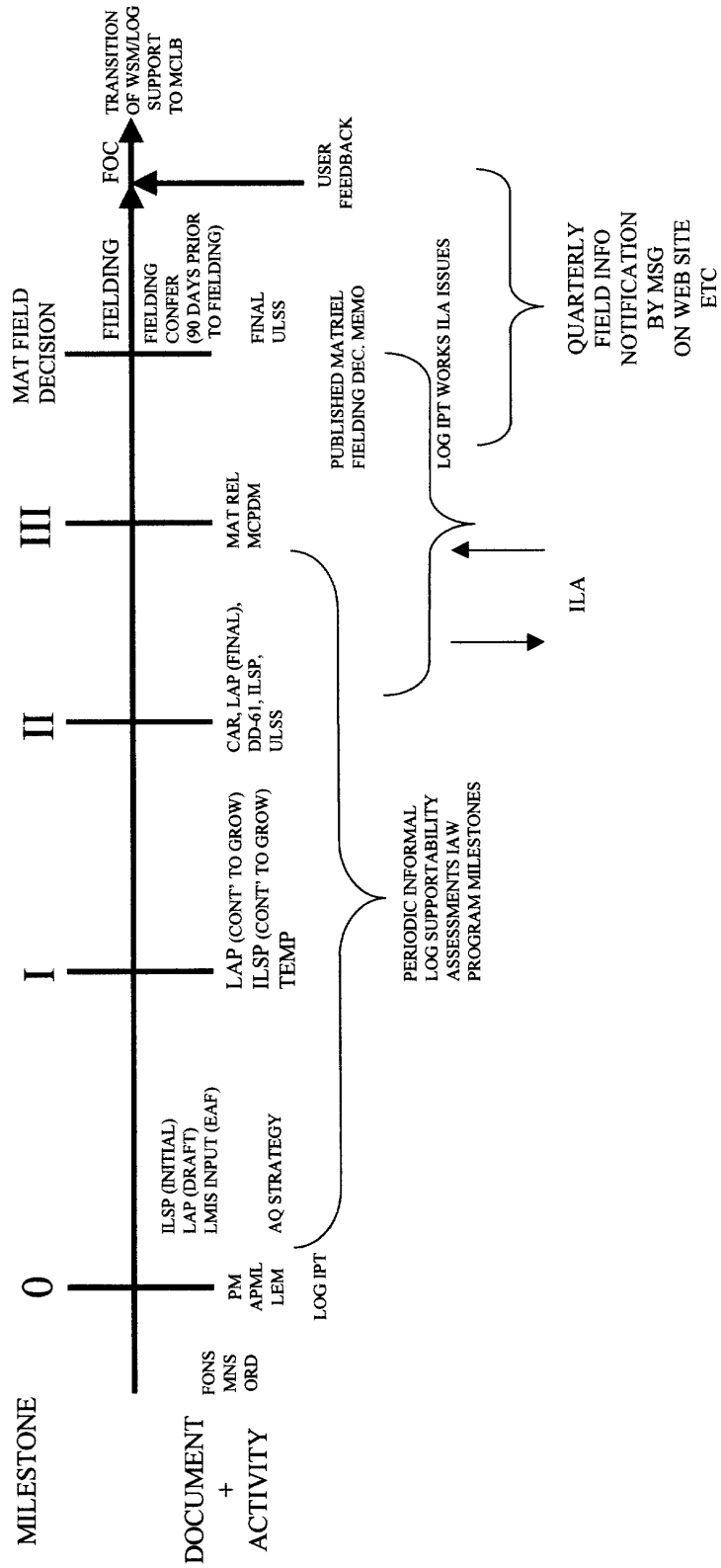


Figure 4.2 ILS Activities.

(a) Materiel Fielding Process. Although planning for the materiel fielding begins during the requirements generation process, the actual fielding cannot begin until materiel release approval is granted.

(1) Materiel Fielding Announcement (MFA). A fielding announcement is developed by the PM for each gaining MARFOR. This announcement provides specific fielding information (i.e., specific dates and actions) identified at the fielding conference. The announcements are promulgated at least 90 days prior to the scheduled Materiel Fielding Conference for each MARFOR. See enclosure (3) of appendix (E) for an example.

(2) Materiel Fielding Conferences (MFC). Prior to the scheduled fielding of a system, the PM conducts fielding conferences with each of the MARFORs and other organizations scheduled to receive the new system. These conferences are conducted as early in the process as possible but no later than 90 days prior to the scheduled fielding date. These conferences are coordinated through the focal points designated by the Operational Forces and conducted at locations determined by the gaining commands. MARCORSYSCOM PM provides draft MFAs and the ULSS to the gaining commands at the materiel fielding conferences.

(3) Materiel Fielding Teams (MFT). The COMMARCORSYSCOM may employ an MFT to assist in the fielding and deployment of the system. While not required for every materiel system, MFTs are formed for complex and high density programs. The PM will determine the need for an MFT. The PM will arrange and fund for the facilities, equipment, tools and materiel needed for the task.

(4) User's Logistic Support Summary (ULSS). The ULSS will identify requirements for an MFT and will clearly describe the scope of assistance provided by the team. Appendix D provides the overall scope of a ULSS. Copies of blank gaining unit fielding evaluation reports are contained as enclosure (4) to Appendix E.

(5) Gaining Unit Fielding Evaluation Report. The Gaining Unit Fielding Evaluation Report will document all problems encountered, corrective actions taken, and lessons learned during the fielding. This report will also identify materiel and services still owed to the gaining command and list all discrepancy and deficiency reports initiated during the fielding. The completed report will be submitted within 6 months of fielding by gaining commands to the DC/S I&L, COMMARCORLOGBASES, and the MARCORSYSCOM PM responsible for the system. Enclosure (4) to appendix (E) provides a sample report.

(b) Fielding Responsibilities. The responsible organizations for fielding are:

(1) COMMARCORSYSCOM. The following COMMARCORSYSCOM responsibilities apply regardless of the method of release:

a. Schedule and conduct fielding conferences. Distribute final draft ULSS at pre-fielding conference.

- b. Coordinate materiel fielding location(s) and staging site(s) (if appropriate) with gaining command(s). Establish and provide instructions to the gaining command(s) and staging site(s).
- c. Develop and coordinate the MFAs.
- d. Determine the need for MFTs.
- e. Coordinate with Defense Communications Materiel Security (DCMS) to ensure availability and arrange for Communication Security (COMSEC) fielding as appropriate. Provide information obtained from coordination with DCMS to gaining units in a timely manner.
- f. Record draft lessons learned and initiate corrective actions to preclude recurrence of the same problems in subsequent fieldings.
- g. Correct documented shortages, discrepancies, or any problems reported by the gaining units. Track the status of discrepancies and deficiencies until the problem(s) is (are) corrected or the gaining unit no longer requires the support.
- h. Ensure that the gaining command is aware of conventional ammunition requirements in the ULSS, to include allocations for training and initial issue quantities.
- i. Maintain life cycle management oversight of the system.

(2) COMMARCORLOGBASES

- a. The following COMMARCORLOGBASES responsibilities apply regardless of the method of release:
  - 1. Provide and fund for appropriate COMMARLOGBASES personnel to participate in the fielding conferences.
  - 2. Print and distribute new or revised technical manuals and/or instructions.
  - 3. Identify the current status of Initial Issue Project (IIP) at the fielding conference for the systems being fielded.
  - 4. Provide the status of Class IX spare and/or repair parts attainment.
  - 5. Obtain authority from the PM to release the initial issue in support of the fielding schedule.
  - 6. Develop, publish and implement phase out plans, and provide disposition instructions, for the replaced system.

7. Receipt for, store and account for assets held in War Reserve Materiel stock or Depot Maintenance Float Allowances.
8. Ensure warranty administration procedures are in place prior to system fielding.
9. Coordinate the resolution of discrepancy reports (PQDRs, Report of Discrepancies (ROD), etc.)
10. Maintain accountability of the system until exit from the Marine Corps inventory.

b. Provide representation to the MFT.

c. When an MFT is not used and the system is shipped to units via the supply system, then the MARCORLOGBASES will have the additional responsibilities to:

1. Coordinate with gaining command(s) to ensure they are aware of shipments and delivery dates and that the gaining command(s) receipts for the system and reports assets in the controlled items file.

2. When directed by the PM, ensure that pre-shipment assembly, inspection, and tests are conducted; and direct the shipment of the system and/or support equipment to the appropriate gaining commands.

(3) Gaining Commands. The gaining command's fielding responsibilities identified below should be established in the MARFOR's local Maintenance Management and Supply Standard Operating Procedures.

a. The following responsibilities apply for the gaining command regardless of the method of fielding:

1. Coordinate with the PM to ensure that the materiel, facilities, personnel, training requirements, and schedules required for fielding are known. Identify any unique installation support requirements.

2. Host fielding conferences. Provide and fund for appropriate gaining command personnel to participate in the conferences.

3. Requisition conventional ammunition (Class V).

4. Program, budget for, and requisition all bulk petroleum and chemicals (Class III), medical materiel (Class VIII), and Using Unit Responsibility Items (UURI).

5. Provide all facilities, personnel, materiel, and administrative support agreed to in the ULSS, MFA, or during the fielding conferences.

6. Establish accountability for all materiel received.
  7. Ensure a designated COMSEC account is established to receive any needed classified COMSEC materiel.
  8. Perform unit level in processing, cleaning, unit marking, and servicing.
  9. If appropriate, conduct a joint Limited Technical Inspection (LTI) with the providing MFT.
  10. Assign a central focal point to serve as the fielding and warranty coordinators.
- b. The following additional responsibilities apply when an MFT is not used and there is no direct delivery by an MFT.
1. Perform all needed deprocessing, assembly, servicing, and marking required to place all systems into operation.
  2. Process all required RODs, PQDRs or warranty claims.
- c. The following additional responsibilities apply when an MFT is used and the system is delivered directly by the MFT.
1. Prior to arrival of the MFT, verify and coordinate the fielding schedules, locations, and all personnel and materiel support to be provided by the gaining command.
  2. Sign joint inventory forms and post necessary receipt and other accounting documentation in accordance with published Marine Corps supply and maintenance procedures.

## CHAPTER 5

### LOGISTICS APPRAISAL

**5.0 Purpose.** The purpose of this chapter is to provide Marine Corps guidance for logistics assessments of a system in support of acquisition milestones and fielding decisions.

**5.1 Periodic Logistics Reviews.** At program initiation, the Logistics IPT is formed. The Logistics IPT reviews the program scope, system's complexity and any other related factors in order to develop the ILS Plan and plan for periodic reviews of the program. These periodic, informal reviews are scheduled to support program milestones and decisions. The ILSO assigned to the program can schedule and conduct additional reviews as appropriate to address supportability issues as the program develops. Prior to Milestone III and in preparation for the fielding decision, an Independent Logistics Assessment (ILA) is conducted.

**5.2 Independent Logistics Assessment (ILA).** The ILA is a technical analysis of all programmatic aspects which address or affect supportability, logistics or readiness. MARCORSYSCOM (PSL) conducts the ILA for all Acquisition Category (ACAT) I and II programs. ILAs for ACAT III, IV, and non-ACAT programs are conducted by the APML assigned to the PM. These assessments provide metrics to ensure that system engineering and the logistics planning efforts are proceeding in accordance with Marine Corps Logistics policies and procedures and the established ILSP. They also identify problems which may affect achievement of supportability thresholds and objectives. An ILA is conducted prior to Milestone III to support fielding decisions. A certification is generated by MARCORSYSCOM (Director PS) at the conclusion of the ILA and forwarded to MARCORSYSCOM (PA&E) documenting the adequacy of the system engineering and logistics posture of the system. It further certifies that the requisite support will be in place when the system is fielded. For software development initiatives, MARCORSYSCOM (PS), based on recommendations from the PM and APML will identify an independent SSA to assess the results of developmental and operational testing in order to evaluate post deployment supportability of the software. Systems that are not supportable will not be fielded by the Marine Corps. ILA participants are shown in Table 5.1.

**5.3 ILA Team.** The ILA is conducted by an assessment team composed of subject matter experts assigned to specific functional areas for review. The ILA team leader will tailor the team membership to ensure adequacy of component commodities included in assessing the system. Assessments for ACAT III, IV and non-ACAT programs will be conducted by the appropriate APML, using a similar process as used for the ACAT I and II programs, but tailored and abbreviated as necessary. MARCORSYSCOM (PSL) provides Secretariat support. The ILA team will use a detailed checklist, maintained by PSL separate from this manual, as a guideline to ensure all logistically significant events, documents, and requirements are examined. Continuous interaction between the review team and program office is required to ensure timely progress of the assessment, and review of findings. In the case of joint program acquisitions a joint ILA Team will be utilized when practical. The Marine Corps' ILA Team will participate in assessments when the Marine Corps milestone decision mirrors the other service or joint service activities. Determination of executing a joint ILA is endorsed during the pre-planning meetings with PA&E and the Head of PSL and clearly defined in the Memorandum of Agreement (MOA) with the other service(s).

Membership will be tailored, and can include combined program documentation to ensure Marine Corps requirements and supportability parameters are clearly defined.

Table 5.1 ILA Participants.

Functional Area	Organization	Activity Code <sup>(2)/(3)</sup>
Team Leader <sup>(1)</sup>	MARCORSYSCOM	Designated APML or PSL
Secretariat	MARCORSYSCOM	PSL
Maintenance Planning	MARCORLOGBASES	
Manpower and Personnel	MARCORSYSCOM MCCDC	SST-MT Trng. & Ed.
Training	MARCORSYSCOM MCCDC (Affected Schools)	SYSCOM-SST Trng. & Ed.
Supply Support	MARCORLOGBASES	
TMDE/Support Equipment	MARCORSYSCOM	PM TMDE
Technical Manual	MARCORSYSCOM	PSD-M
Computer Resources Hardware Software	MARCORSYSCOM Designated SSA	C <sup>4</sup> I-CCR
Post Deployment Software Support	Designated SSA	
Facilities	HQMC	LFL
PHS&T	MARCORLOGBASES	S&DD
Transportability	MARCORSYSCOM	PSE-T
RAM	MARCORSYSCOM	PSE-P
System Safety/EMI/EMC	MARCORSYSCOM	PSE-S
Configuration Management	MARCORSYSCOM	PSE-D
Quality Assurance	MARCORSYSCOM	PSE-P
CALS	MARCORSYSCOM	PSL
Other	(As Required)	

1/ For ACAT I and II; PSL. For ACAT III, IV and non ACAT; APML

2/ For pre-MS III and pre-Fielding Decision ILAs, MARFORs and MCCDC (TFS) and (T&E) are represented.

3/ Participation by commodity specialists are tailored to meet program needs.

**5.4 ILA Process.** The steps of the ILA process for ACAT I and II programs are summarized below and included in Table 5.2 and Figure 5.1. This process is provided as a typical snapshot of timelines and requirements. Each step can be tailored to meet program evaluation objectives. The process is tailored to meet ACAT III, IV and non ACAT program requirements.

Table 5.2 Planning for an ILA.

Activity	Responsible COMMARCORSYSCOM Organization
MCPDM Planning Meeting	PA&E
ILA Announcement	PSL/APML
Documentation Provided	PM
ILA Meeting	PSL/APML
Documentation Review/Findings Development	ILA Team
Debrief Meeting	ILA Team Leader
POA&M	PM
Director, PS Meeting	ILA Team Leader
Final Report	Director, PS

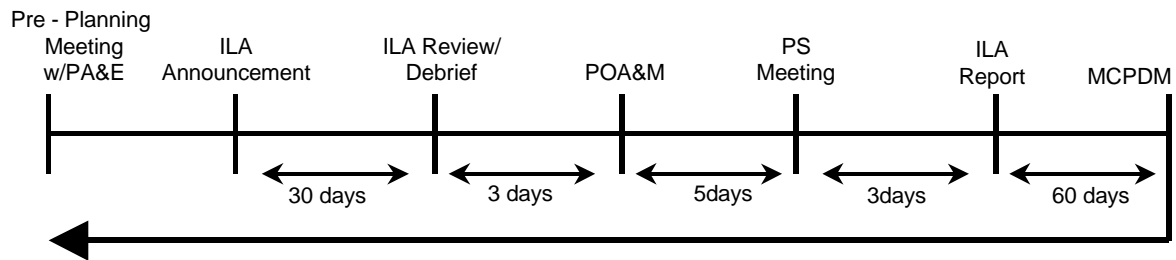


Figure 5.1 Notional ILA Timeline.

(a) Marine Corps Program Decision Memorandum (MCPDM) Pre-Planning Meeting. MARCORSYSCOM (PA&E) will conduct a MCPDM Pre-Planning meeting, at the request of the Program Management Office (PMO), to ensure that the acquisition program is prepared for the milestone III decision review. This meeting is ideally scheduled six months prior to the milestone decision review. MARCORSYSCOM (PA&E) determines the documentation required for the MDA to make a decision. The ILA team leader will validate the documentation requirements for the ILA. Table 5.3 provides a listing of documents normally requested. This listing is tailored to the program and ACAT level.

(b) ILA Announcement. The ILA team leader will publish an ILA announcement, 30 days prior to the commencement of the assessment. This announcement, notifies participants identified in Table 5.1.

(c) ILAs for a MS III decision. The ILA for a MS III decision is accomplished in two segments:

(1) The first segment is conducted as part of the Commander's Safety and Ready for Test Certification which is defined in the MARCORSYSCOM T&E Handbook. ILA participants actively analyze supportability, logistics, and readiness of the acquisition program, three months



Table 5.3 Sample ILA Documentation List.

DOCUMENT TITLE	APPLICABILITY							
	ACAT				MILESTONE			
	I	II	III	IV	0	I	II	III
MISSION NEEDS STATEMENT (MNS)	X	X	X	X	X			
OPERATIONAL REQUIREMENTS DOCUMENT (ORD)	X	X	X	X		X	X	X
PREVIOUS ACQUISITION DECISION MEMORANDUM (ADM)	X	X	X	X		X	X	X
ACQUISITION PROGRAM BASELINE (APB)	X	X	X	X		X	X	X
TEST AND EVALUATION MASTER PLAN (TEMP)	X	X	X	X		X	X	X
ACQUISITION STRATEGY DOCUMENT WHICH ADDRESSES: (1/2)								
ENVIRONMENTAL, SAFETY, & HEALTH EVALUATION	X	X	X	X		X	X	X
TECHNOLOGY & INDUSTRIAL CAPABILITY ASSESSMENT	X					X	X	X
COOPERATIVE OPPORTUNITIES ASSESSMENT	X					X	X	X
RISK ASSESSMENT	X	X	X	X		X	X	X
LIFE CYCLE COST ESTIMATE	X	X	X	X		X	X	X
MANPOWER ESTIMATES	X					X	X	X
DEVELOPMENT, TEST AND EVALUATION (DT&E) REPORT	X	X	X	X			X	X
INDEPENDENT EVALUATION REPORT (IER) (OT REPORT)	X	X	X	X				X
SYSTEM SPECIFICATION	X	X	X	X		X	X	X
INTEGRATED LOGISTICS SUPPORT PLAN (ILSP) (Signed FOR MS II & III)	X	X	X	X		X	X	X
USERS LOGISTICS SUPPORT SUMMARY (ULSS) (DRAFT)	X	X	X	X				X
ACQUISITION PLAN (when COMMARCORSYSCOM is contracting agency)	X	X	X	X		X	X	X
RELIABILITY/MAINTAINABILITY PREDICTIONS (1)	X	X	X	X			X	X
RELIABILITY/MAINTAINABILITY DEMO REPORT (1)	X	X	X	X			X	X
EMI/EMC TEST REPORTS (1)	X	X	X	X			X	X
SAFETY ASSESSMENT REPORT (1)	X	X	X	X			X	X
SAFETY CERTIFICATION (1/3)							X	X
CONFIGURATION AUDIT REPORT (1)	X	X						X
TRANSPORTABILITY CERTIFICATION (1)	X	X	X	X			X	X
HELO EXTERNAL LIFT CERTIFICATION (1)	X	X	X	X			X	X

1/ Requirement determined by PSE with the PM.

2/ COMMARCORSYSCOM generated - must be signed by the Program Manager and Program Support before ILA.

3/ Includes report form Laser Safety Review Board, Weapons Systems Explosives Safety Review Board and Lithium Battery Board.

prior to a user evaluation or OT. Participants concurrently validate safety and readiness objectives to support the testing evolution. The report generated is documented in the OT Checklist, recommending the acquisition program as safe and ready for test.

(2) The second segment is completed during the MARCORSYSCOM (PA&E) documentation review. ILA participants evaluate the impacts of issues identified in the MCOTEA Independent Evaluation Report (IER) and determine whether supportability issues were properly planned and acceptable work around procedures are sufficiently planned to support the Acquisition Program MS III decision. A certification is generated by Director, PS identifying the combined results of ILA segments as discussed in the following paragraphs.

(d) ILA Review/ Debrief. The ILA meeting is conducted, ideally 90 days prior to the milestone decision, with all invited team members and the PMO. Appropriate Program documentation as well as those documents addressing supportability planning and implementation are evaluated. During the ILA, findings are generated. Preliminary findings are submitted to the ILSO and PO for review prior to being presented to the ILA team leader. Each finding presented to the ILA team leader will contain recommended corrective actions. The ILA team leader will then formally present the PM with all ILA findings and request that the PM prepare a Plan of Action and Milestones (POA&M) identifying the proposed resolution of findings. The ILA review report with the enclosed POA&M as provided by the PM is then forwarded to MARCORSYSCOM (PA&E) along with a recommendation from MARCORSYSCOM (PS) pertaining to the fielding decision.

(e) Director, Program Support. The ILA Team Leader will brief the Director, Program Support once there is an agreement to resolve identified issues. The Director, PS makes the determination as to whether the program is or is not logistically supportable.

(f) ILA Report. One final ILA report is written by the Team Leader with support from the Secretariat, and presented to Director, PS for signature. The report is then forwarded to PA&E with a copy to the PM and ILA team members. The final package will include the approved POA&M and either a recommendation that the program continue into fielding, or that the program not proceed to the next acquisition phase until the issues identified are resolved. The Director PS will make this determination based upon the substance and severity of the findings.

(g) Marine Corps Program Decision Memorandum (MCPDM). A decision memorandum is prepared by the PM for the MDA. The findings generated during the ILA are incorporated into the integrated program assessment document and become exit criteria included in the Acquisition Decision Memorandum for the fielding decision. This memorandum is presented to the COMMARCORSYSCOM during a formal milestone decision briefing and is used by the MDA to make a determination to allow the Program to proceed to fielding.



## **APPENDIX A**

### **ACRONYMS**

<b>AAO</b>	Approved Acquisition Objective
<b>ACAT</b>	Acquisition Category
<b>ADM</b>	Acquisition Decision Memorandum
<b>AIS</b>	Automated Information System
<b>AP</b>	Acquisition Program
<b>APB</b>	Acquisition Program Baseline
<b>APM</b>	Assistant Program Manager
<b>APML</b>	Assistant Program Manager Logistics
<b>ASN RD&amp;A</b>	Assistant Secretary of Navy Research Development & Acquisition
<b>ATE</b>	Automated Test Equipment
<b>ATEP</b>	Automated Test Equipment Program
<b>A<sub>(a)</sub></b>	Achieved Availability
<b>A<sub>(i)</sub></b>	Inherent Availability
<b>A<sub>(o)</sub></b>	Operational Availability
<b>BIT</b>	Built In Test
<b>BITE</b>	Built In Test Equipment
<b>C<sup>4</sup>I</b>	Command, Control, Communication, Computers and Intelligence
<b>CALS</b>	Continuous Acquisition and Life Cycle Support
<b>CAR</b>	Catalog Action Request
<b>CCB</b>	Configuration Control Board
<b>CDRL</b>	Contract Data Requirements List
<b>CE</b>	Concept Exploration
<b>CG MCCDC</b>	Commanding General Marine Corps Combat Development Command
<b>CI</b>	Configuration Items
<b>CLS</b>	Contractor Logistics Support
<b>CM</b>	Configuration Management
<b>CMC</b>	Commandant of the Marine Corps
<b>COMMARCORLOGBASES</b>	Commander Marine Corps Logistics Bases
<b>COMMARCORSYSCOM</b>	Commander Marine Corps System Command
<b>COMMARFOR</b>	Commander Marine Forces
<b>COMNAVAIRSYS</b>	Commander Naval Air Systems
<b>COMS</b>	Contractor Operation and Maintenance of Simulators
<b>COMSEC</b>	Communication Security
<b>CONUS</b>	Continental United States
<b>CSA</b>	Configuration Status Accounting
<b>CSCI</b>	Computer Software Configuration Item
<b>CSIE</b>	Command Standards Improvement Executive

<b>DCMS</b>	Defense Communications Materiel Security
<b>DC/S I&amp;L</b>	Deputy Chief of Staff for Installations and Logistics
<b>DC/S M&amp;RA</b>	Deputy Chief of Staff for Manpower and Reserve Affairs
<b>DFAR</b>	Defense Federal Acquisition Regulation
<b>DI</b>	Developmental Item
<b>DID</b>	Data Item Description
<b>DLA</b>	Defense Logistics Agency
<b>DoD</b>	Department of Defense
<b>DODD</b>	Department of Defense Directive
<b>DON</b>	Department of the Navy
<b>DOTES</b>	Doctrine, Organization, Training, Equipment and Supportability
<b>DSMC</b>	Defense System Management College
<b>E<sup>3</sup>CP</b>	Electromagnetic Environmental Effects Control Program
<b>ECP</b>	Engineering Change Proposal
<b>EMC</b>	Electromagnetic Compatibility
<b>E&amp;MD</b>	Engineering and Manufacturing Development
<b>EMI</b>	Electromagnetic Interference
<b>EOD</b>	Explosive Ordnance Disposal
<b>ESH</b>	Environmental, Safety and Health
<b>FAR</b>	Federal Acquisition Regulation
<b>FED LOG</b>	Federal Logistics Information System
<b>FMEA</b>	Failure Modes Effects Analysis
<b>FSR</b>	Facility Support Requirements
<b>GFE</b>	Government Furnished Equipment
<b>GFI</b>	Government Furnished Information
<b>GFM</b>	Government Furnished Materiel
<b>GOL</b>	Garrison Operating Levels
<b>GSE</b>	Government Support Equipment
<b>HAZMAT</b>	Hazardous Materiel
<b>HQMC</b>	Headquarters Marine Corps
<b>HSI</b>	Human Systems Integration
<b>ICP</b>	Inventory Control Point
<b>ICS</b>	Interim Contractor Support
<b>ICW</b>	Interactive Courseware
<b>IER</b>	Independent Evaluation Report
<b>IETM</b>	Interactive Electronic Technical Manuals
<b>IIP</b>	Initial Issue Project
<b>ILA</b>	Independent Logistics Assessment
<b>ILS</b>	Integrated Logistics Support
<b>ILSO</b>	Integrated Logistics Support Officer
<b>ILSP</b>	Integrated Logistics Support Plan

<b>IOC</b>	Initial Operating Capability
<b>IPT</b>	Integrated Process Team
<b>LCC</b>	Life Cycle Cost
<b>LCLS</b>	Life Cycle Logistics Support
<b>LEM</b>	Logistics Element Manager
<b>LI</b>	Lubrication Instruction
<b>LMIS</b>	Logistics Management Information System
<b>LORA</b>	Level of Repair Analysis
<b>LRIP</b>	Low Rate Initial Production
<b>LTI</b>	Limited Technical Inspection
<b>MAIS</b>	Major Automated Information System
<b>MARCORLOGBASES</b>	Marine Corps Logistics Bases
<b>MARCORSYSCOM</b>	Marine Corps Systems Command
<b>MARFOR</b>	Marine Forces
<b>MCBUL</b>	Marine Corps Bulletin
<b>MCCDC</b>	Marine Corps Combat Development Command
<b>MCCR</b>	Mission Critical Computer Resources
<b>MCLORA</b>	Marine Corps Level of Repair Analysis
<b>MCO</b>	Marine Corps Order
<b>MCPDM</b>	Marine Corps Program Decision Memorandum
<b>MCTSSA</b>	Marine Corps Tactical Software Support Activity
<b>MDA</b>	Milestone Decision Authority
<b>MDAP</b>	Major Defense Acquisition Program
<b>ME</b>	Maintenance Engineering
<b>MFA</b>	Materiel Fielding Announcement
<b>MFC</b>	Materiel Fielding Conference
<b>MFT</b>	Materiel Fielding Team
<b>MI</b>	Modification Instruction
<b>MILCON</b>	Military Construction
<b>MIL-HDBK</b>	Military Handbook
<b>MIL-SPEC</b>	Military Specification
<b>MIL-STD</b>	Military Standard
<b>MIL-T</b>	Military Training
<b>MIMMS</b>	Marine Corps Integrated Materiel/Management System
<b>MMHOH</b>	Maintenance Man Hours per Operating Hour
<b>MNS</b>	Mission Need Statement
<b>MOA</b>	Memorandum Of Agreement
<b>MOS</b>	Military Occupation Specialty
<b>MPT</b>	Manpower Personnel Training
<b>MS</b>	MileStone
<b>MTBF</b>	Mean Time Between Failure
<b>MTTR</b>	Mean Time To Repair

<b>NDI</b>	Non Developmental Item
<b>NGS</b>	Non Governmental Standards
<b>NSN</b>	National Stock Number
<b>OPNAVINST</b>	Office of the Chief of Naval Operations Instructions
<b>ORD</b>	Operational Requirements Document
<b>OT</b>	Operational Testing
<b>PAT</b>	Process Action Team
<b>PCN</b>	Publication Control Number
<b>PD&amp;RR</b>	Program Definition & Risk Reduction
<b>PEI</b>	Principle End Item
<b>PFDOS</b>	Production, Fielding, Deployment and Operational Support
<b>PHS</b>	Packaging, Handling and Storage
<b>PHS&amp;T</b>	Packaging, Handling, Storage & Transportation
<b>PICA</b>	Primary Inventory Control Activity
<b>PIP</b>	Product Improvement Program
<b>PM</b>	Program Manager
<b>PMO</b>	Program Management Office
<b>PO</b>	Project Officer
<b>POA&amp;M</b>	Plan of Action and Milestones
<b>POM</b>	Program Objective Memorandum
<b>PPS</b>	Post Production Support
<b>PQDR</b>	Product Quality Deficiency Report
<b>PR</b>	Procurement Request
<b>PS</b>	Program Support
<b>PSD</b>	Program Support Documentation
<b>PSE</b>	Program Support Engineering
<b>PSL</b>	Program Support Logistics
<b>RAM</b>	Reliability, Availability and Maintainability
<b>RD&amp;A</b>	Research Development & Analysis
<b>ROD</b>	Report of Discrepancy
<b>SAT</b>	Systems Approach to Training
<b>SECNAV</b>	Secretary of Navy
<b>SECNAVINST</b>	Secretary of Navy Instruction
<b>SI</b>	Supply Instruction
<b>SICA</b>	Secondary Inventory Control Activity
<b>SL</b>	Stock List
<b>SMRC</b>	Source Maintenance Recoverability Code
<b>SOW</b>	Statement of Work
<b>SSA</b>	Software Support Activity
<b>TAMCN</b>	Table of Authorized Materiel Control Number
<b>TEMP</b>	Test & Evaluation Master Plan

<b>TFS</b>	Total Force Structure
<b>TI</b>	Technical Instruction
<b>TIWG</b>	Test Integration Working Group
<b>TMCR</b>	Technical Manual Contract Requirement
<b>TMDE</b>	Test Measurement and Diagnostic Equipment
<b>TPDP</b>	Training Program Development Plan
<b>TPS/APS</b>	Test Program Sets/Application Program Sets
<b>TRPPM</b>	Training Planning Process Methodology
<b>T&amp;E</b>	Test & Evaluation
<b>T/O</b>	Table of Organization
<b>ULSS</b>	Users Logistics Support Summary
<b>UURI</b>	Using Unit Responsibility Items
<b>WRMR</b>	War Reserve Materiel Requirements
<b>WS/E</b>	Weapon System/Equipment
<b>WSESRB</b>	Weapons System Explosive Review Board
<b>WSM</b>	Weapon System Manager
<b>WSSP</b>	Weapon System Support Program





## **APPENDIX B**

### **REFERENCES**

**B-1. SCOPE.** This appendix lists all directives, orders, standards and other official publications referenced in this manual.

#### **B-2. DIRECTIVES**

DoDD 3222.3D	DoD Electromagnetic Compatibility Program
DoDD 4140.1-R	Materiel Management Regulation
DoDD 4151.1-D	Use of Contractor and DoD Resources for Maintenance of Materiel
DoDD 4500.9-R	Defense Transportation Regulation Part II Cargo Movement
DoDD 5000.1D	Defense Acquisition
DoDD 5000.2-R	Mandatory Procedures for Major Defense Acquisition Programs and Major Automated Information Systems

#### **B-3. ORDERS**

MCO 1200.7R	Military Occupational Specialties (MOS) Manual
MCO 1510.34A	Individual Training Standards System
MCO 1553.1B	The Marine Corps Training and Education System
MCO 1553.6	Development, Management and Acquisition of Interactive Courseware (ICW) for Marine Corps Instruction
MCO 1580.7C	Inter-service Training
MCO 2410.2A	Electromagnetic Environmental Effects Control Program (E <sup>3</sup> CP)
MCO P4000.21B	Data Acquisition Program Manual
MCO 4030.33C	Packaging of Materiels
MCO 4030.36A	Marine Corps Packaging Manual
MCO 4105.1B	Weapon System Management in the Marine USMC
MCO 4105.2	Marine Corps Warranty Program
MCO 4105.4	Ground Weapons Systems/Equipment
MCO 4400.79F	Provisioning Manual
MCO 4410.22C	Wholesale Inventory Management and Logistics Supply of Multi-Service Used Non-consumable Items
MCO 4410.26	USMC Engineering Data Program Management
MCO 4410.27A	Processing Cataloging Action Requests
MCO 4600.7C	Marine Corps Transportation Manual
MCO 4610.14C	DoD Engineering for Transportability
MCO 4733.1A	Marine Corps Test, Measurement, and Diagnostic Equipment Calibration and Maintenance Program
MCO 4790.3A	MIMMS Depot Policy Manual
MCO 4790.10A	Logistics Depot Maintenance Inter-service
MCO 4855.10B	Product Quality Deficiency Report Program
MCO 5000.23	Policy for the Fielding of Ground Weapon Systems and Equipment
MCO 5215.16A	Inter-servicing of Technical Manuals and Related Technology
MCO 5215.17C	The USMC Technical Publications System

MCO 5311.1B	Table of Organization Management Procedures
MCO 10510.18B	Policy Responsibility for Test, Measurement, and Diagnostic Equipment (TMDE)
MCO P11000.12C	Real Property Facilities Manual, Vol II: Facilities Planning and Programming
HQO 5400.20	Programmed Force Structure Management

**B-4. STANDARDS**

MIL-STD-196D	Joint Electronics Type Designation System
MIL-STD-973	Configuration Management
MIL-STD-2073-1C	DoD Standard Practice for Military Packaging

**B-5. OTHER PUBLICATIONS**

SECNAVINST 4105.1	Integrated Logistics Assessment and Certification Requirements
SECNAVINST 5000.2B	Implementation of Mandatory Procedures for Major and Non-major Defense Acquisition Programs and Major and Non-major Information Technology Acquisition Programs MC BUL 3000 Table of Marine Corps Automate Readiness/Evaluation Systems (MARES) Logistics Reportable Equipment
MIL-HDBK-28B	Review and Acceptance of Engineering Drawing Packages
MIL-HDBK-1379-1,2,3,4	Guidance for Acquisition of Training Data Products and Services
MIL-PRF-29612	Performance Specifications for Training Data Products
MIL-PRF-49506	Logistics Management Information Defense System Management College (DSMC) Warranty Guidebook
MARCORSYSCOM	Program Managers Configuration Management (CM) Handbook
MARCORSYSCOM	Acquisition Logistics Handbook
DSMC	Defense Systems Management College (DSMC) Warranty Guidebook

## APPENDIX C

### GLOSSARY OF TERMS

#### A

##### Acquisition Category (ACAT)

**ACAT I** programs are Major Defense Acquisition Programs (MDAPs). An MDAP is defined as a program estimated by the Under Secretary of Defense (Acquisition and Technology) (USD (A&T)) to require eventual expenditure for research, development, test and evaluation of more than \$355 million (fiscal year (FY) 96 constant dollars) or procurement of more than \$2.135 billion (FY96 constant dollars), or those designated by the USD (A&T) to be ACAT I. ACAT I programs have two sub-categories:

1. **ACAT ID** for which the Milestone Decision Authority (MDA) is USD (A&T). The "D" refers to the Defense Acquisition Board (DAB), which advises the USD (A&T) at major decision points.

2. **ACAT IC** for which the MDA is the DoD Component Head or, if delegated, the DoD Component Acquisition Executive (CAE). The "C" refers to Component.

**ACAT IA** programs are Major Automated Information Systems (MAISs). A MAIS is estimated by the Assistant Secretary of Defense for Command, Control, Communications and Intelligence (ASD (C3I)) to require program costs for any single year in excess of \$30 million (FY96 constant dollars), total program in excess of \$120 million (FY96 constant dollars), or total life cycle costs in excess of \$360 million (FY96 constant dollars), or those designated by the ASD (C3I) to be ACAT IA. ACAT IA programs have two sub-categories:

1. **ACAT IAM** for which the MDA is the Office of the Secretary of Defense (OSD) Chief Information Officer (CIO) (formerly the senior IM Official, the ASD (C3I)). The "M" refers to Major Automated Information Systems Review Council (MAISRC).

2. **ACAT IAC** for which the MDA is the DoD Component Chief Information Officer (CIO) (formerly the Senior IM Official). The "C" refers to Component.

The ASD (C3I) designates programs as ACAT IAM or ACAT IAC.

**ACAT II** programs are defined as those acquisition programs that do not meet the criteria for an ACAT I program, but do meet the criteria for a major system. A major system is defined as a program estimated by the DoD Component Head to require eventual expenditure for research, development, test, and evaluation of more than \$135 million in FY96 constant dollars, or for procurement of more than \$640 million in FY96 constant dollars, or those designated by the DoD Component Head to be ACAT II. The MDA is the DoD CAE.

**ACAT III** programs are defined as those acquisition programs that do not meet the criteria for an ACAT I, an ACAT IA, or an ACAT II. The MDA is designated by the CAE and shall be at the lowest appropriate level. This category includes a less-than-major AISs.

**Acquisition Decision Memorandum (ADM)** A memorandum signed by the milestone decision authority (MDA) that documents decisions made as the result of a milestone decision review or an in progress review.

**Acquisition Logistics** Technical and management activities to ensure supportability implications are considered early and throughout the acquisition process to minimize support costs and to provide the user with the resources to sustain the system in the field.

**Acquisition Managers** Persons responsible at different levels for some activity of developing, producing, and fielding a weapons system. Includes senior level managers responsible for ultimate decisions, program managers, and commodity or functional area managers.

**Acquisition Program** A directed and funded effort that is designated to provide a new, improved or continuing weapons system for automated information system capability in response to a validated operational need.

**Automatic Test Equipment (ATE)** Any automated device used for express purpose of testing prime equipment; usually external to the prime device (e.g., support equipment).

## B

**Built-In Test Equipment (BITE)** Any device permanently mounted in the prime equipment and used for the express purpose of testing the prime equipment, either independently or in association with external test equipment.

## C

**Continuous Acquisition and Life-Cycle Support (CALS)** A core strategy to share integrated digital product data through a set of standards to achieve efficiencies in business and operational mission areas.

## D

**Developmental Test and Evaluation (DT&E)** T&E conducted throughout the life cycle to identify potential operational and technological capabilities and limitations of the alternative concepts and design options being pursued; support the identification of cost-performance trade-offs by providing analyses of the capabilities and limitations of alternatives; support the identification and description of design technical risks; assess progress toward meeting critical operational issues, mitigation of acquisition technical risk, achievement of manufacturing process requirements and system maturity; assess validity of assumptions and conclusions from analysis of alternatives; provide data and analysis in support of the decision to certify the system ready for operational test and evaluation; and in the case of automated information systems, support an

information systems security certification prior to processing classified or sensitive data and ensure a standards conformance certification.

## E

**Electromagnetic Interference (EMI)** Engineering term used to designate interference in a piece of electronic equipment caused by another piece of electronic or other equipment. Sometimes refers to interference caused by nuclear explosion.

**Engineering and Manufacturing Development (E&MD)** The third phase in the acquisition process, following Milestone II. The system and/or the equipment and the principal items necessary for its support are fully developed, engineered, designed, fabricated, tested and evaluated. The intended output is, as a minimum, a preproduction system which closely approximates the final product, the documentation necessary to enter the production phase, and the test results which demonstrate that the production product will meet stated requirements.

## F

**Federal Acquisition Regulation (FAR)** The regulation for use by the federal executive agencies for acquisition of supplies and services with appropriated funds. The FAR is supplemented by the Military Departments and by the DoD. The DoD supplement is called the DFARS (Defense FAR Supplement).

## G

**Government Furnished Equipment (GFE)** Equipment in the possession of or acquired directly by the government, and subsequently delivered to or otherwise made available to the contractor.

## H

**Human Systems Integration (HSI)** A disciplined, unified and interactive approach to integrate human considerations into system design to improve total system performance and reduce cost of ownership. The major categories of human considerations are manpower, personnel, training, human factors engineering, safety and health.

## I

**Integrated Product Team (IPT)** Team composed of representatives from all appropriate functional disciplines working together to build successful programs, identify and resolve issues, and make sound and timely recommendations to facilitate decision making.

## L

**Life Cycle Cost (LCC)** The total cost to the government of acquisition and ownership of a system over its useful life. It includes the cost of development, acquisition, operations and support (to include manpower), and when applicable, disposal.

**Level of Repair Analysis (LORA)** A trade study conducted by a contractor as part of the system and/or the equipment engineering analysis process. A basis on which to evolve an optimum approach to repair recommendations concurrent with the design and development process.

**Low-Rate Initial Production (LRIP)** The minimum number of systems (other than ships and satellites) to provide production representative articles for operational test and evaluation, to establish an initial production base, and to permit an orderly increase in the production rate sufficient to lead to full-rate production upon successful completion of operational testing. Major defense acquisition programs LRIP quantities in excess of 10 percent of the acquisition objective must be reported in the selected acquisition report. For ships and satellites LRIP is the minimum quantity and rate that preserves mobilization.

## M

**Major Defense Acquisition Program (MDAP)** An acquisition program that is not a highly sensitive classified program (as determined by the Secretary of Defense) and that is designated by the Under Secretary of Defense (acquisition and Technology) as an MDAP, or estimated by the USD (A&T) to require an eventual total expenditure for research, development, test and evaluation of more than 355 million in fiscal year (FY) 96 constant dollars or for the procurement of more than 2.135 billion FY96 constant dollars.

**Mean Time Between Failure (MTBF)** For a particular interval, the total functional life of a population of an item divided by the total number of failures within the population. The definition holds for time, rounds, miles, events or other measures of life unit. A basic technical measure of reliability.

**Mean Time To Repair (MTTR)** The total elapsed time (clock hours) for corrective maintenance divided by the total number of corrective maintenance actions during a given period of time. A basic technical measure of maintainability.

**Milestone (MS)** The point when a recommendation is made and approval sought regarding starting or continuing (proceeding to the next phase) an acquisition program. Milestones are: 0 (Approval to conduct concept studies), I (Approval to begin a new acquisition program), II (Approval to enter engineering and manufacturing development) and III (Production or fielding development and operational support approval).

**Mission Need Statement (MNS)** A nonsystem specific statement of operational capability need prepared in accordance with the Chairman of the Joint Chiefs of Staff Memorandum of Policy 77. Developed by the DoD components and forwarded to the operational for validation and approval. Approved MNSs go to the milestone decision authority for a determination on whether or not to convene a Milestone 0 review.

## N

**Nondevelopmental Item (NDI)** A nondevelopmental item is any previously developed item of supply used exclusively for government purposes by a Federal Agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement; any item described above that requires only minor modifications or modifications of the type customarily available in the commercial marketplace in order to meet the requirements of the processing department or agency.

## O

**Operational Requirements Document (ORD)** Documents the users objectives and minimum acceptable requirements for operational performance of a proposed concept or system. Format is contained in Appendix II, DoDD 500.2-R.

## P

**Packing, Handling, Storage and Transportation (PHS&T)** The resources, processes, procedures, design considerations and methods to ensure all systems, equipment, and support items are preserved, packaged, handled and transported properly. This includes environmental considerations, equipment preservation requirements for short and long-term storage and transportability. One of the traditional logistic support elements.

**Procurement Request (PR)** Document which describes the required supplies or services so that a procurement can be initiated. Some procuring activities actually refer to the document by this title, others use different titles such as Procurement Directive. Combined with specifications, the statement of work and contract data requirements list (CDRL), it is called the PR Package, a basis for solicitation.

**Program Definition and Risk Reduction (PDRR)** The second phase in the acquisition process, following Milestone I. Consists of steps necessary to verify preliminary design and engineering, build prototypes, accomplish necessary planning, and fully analyze trade-off proposals. The objective is to validate the choice of alternatives and to provide the basis for determining whether to proceed into engineering and manufacturing development.

**Program Objectives Memorandum (POM)** An annual memorandum in prescribed format submitted to the Secretary of Defense by the DoD component heads which recommends the total resource requirements and programs within the parameters of SECDEF's fiscal guidance. A major document in the planning, programming and budgeting system; is the basis for the budget. The POM is the principal programming document which details how a component proposes to respond to assignments in the defense planning guidance and satisfy its assigned functions of the future years defense program. The POM shows programmed needs for 5 or 6 years hence and includes manpower, force levels, procurement, facilities, research and development.



## R

**Reliability, Availability and Maintainability (RAM)** Requirement imposed on acquisition systems to ensure they are operationally ready for use when needed, will successfully perform assigned functions, and can be economically operated and maintained within the scope of logistics concepts and policies. RAM programs are applicable to materiel systems; test measurement and diagnostic equipment, training devices; and facilities developed, produced, maintained, procured or modified for use.

## S

**Supply Support** The process conducted to determine, acquire, catalog, receive, store, transfer, issue and dispose of secondary items necessary for the support of end items and support items. This includes provisioning for initial support as well as replenishment supply support. One of the traditional logistic support elements.

**System Acquisition Process** The sequence of acquisition activities starting from the agency's reconciliation of its mission needs, with its capabilities, priorities and resources, and extending through the introduction of a system into operational use of the otherwise successful achievement of program objectives.

## T

**Test and Evaluation Master Plan (TEMP)** Documents the overall structure and objectives of the test and evaluation program. It provides a framework within which to generate detailed T&E plans and it documents schedule and resource implications associated with the T&E program. The TEMP identifies the necessary developmental test and evaluation, operational test and evaluation and livefire test and evaluation activities. It relates program schedule, test management strategy and structure, and required resources to: critical operational issues; critical technical parameters; objectives and thresholds documented in the ORD; evaluation criteria; and (5) milestone decision points. For multiservice or joint programs, a single integrated TEMP is required. Component-unique content requirements, particularly evaluation criteria associated with critical operational issues, can be addressed in a component-prepared annex to the basic TEMP.

**Training and Training Support** The processes, procedures, techniques, training devices, and equipment used to train civilian, active duty and reserve military personnel to operate and support a materiel system. This includes individual and crew training; new equipment training; initial, formal, and on-the-job training; and logistic support planning for training for training equipment and training device acquisitions and installations. A traditional element of logistic support.

**V**

**Value Engineering** Value engineering is a functional analysis methodology that identifies and selects the best value alternative for designs, materials, processes, systems, and program documentation. VE applies to hardware and software; development, production, and manufacturing; specifications, standards, contract requirements, and other acquisition program documentation; facilities design and construction; and management or organizational systems and processes to improve the resulting product.

**W**

**Weapon Support and Logistic Research and Development** Technology programs funded outside the weapon system development programs that may result in improved subsystem reliability and maintainability, improved support for the operation and maintenance of weapon systems, and improved logistics infrastructure elements.



## **APPENDIX D**

### **USER'S LOGISTICS SUPPORT SUMMARY**



ULSS XXXXXX-15

**USER'S LOGISTIC SUPPORT SUMMARY**

**NOMENCLATURE TITLE**  
**MODEL NUMBER**



**NSN XXX-XX-XXX-XXXX**

MARINE CORPS SYSTEMS COMMAND  
QUANTICO, VA 22134-5010

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MONTH 19XX  
PCN 132 XXXXXX 00  
ULSS XXXXXX-15

DEPARTMENT OF THE NAVY  
Headquarters, U.S. Marine Corps  
Washington, DC 20380-0001

XX Month 19XX

1. This User's Logistic Support Summary (ULSS), authenticated for Marine Corps use and effective upon receipt, advises the Fleet Marine Force (FMF) and other selected commands of the plan to field and logistically support the (System Nomenclature, Model Number and National Stock Number).
2. Submit notice of discrepancies or suggested changes to this ULSS to: Commander, ATTN: PSL, MARCORSYSCOM, 2033 Barnett Ave, Suite 315, Quantico, Virginia 22134-5010 or via the following Internet E-MAIL address: LOGC@QUANTICO.USMC.MIL. In addition, forward an information copy to the Project Officer (PO) and ILS Officer at the following address: Commander, ATTN: PM Office Code, MARCORSYSCOM, 2033 BARNETT Ave, Suite 315, Quantico, Virginia 22134-5010.
3. This ULSS is applicable to the Marine Corps Reserve.
4. This ULSS supersedes LAP(s) XX-XX Dated XX MONTH 19XX

BY DIRECTION OF THE COMMANDER MARINE CORPS SYSTEMS COMMAND

OFFICIAL:

I. M. Signer  
Colonel, USMC  
Director, Program Support  
Marine Corps Systems Command

DISTRIBUTION: PCN 132 XXXXXX 00

RECORD OF CHANGES

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NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by miniature pointing heads. Changes to wiring diagrams are indicated by shaded areas.

**Dates of issue for original and changed pages are:**

Original.....XX Month 19XX

**TOTAL NUMBER OF PAGES IN THIS MANUAL IS xxx, CONSISTING OF THE FOLLOWING:**

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## **APPENDIX E**

### **MATERIEL RELEASE FORMS**

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## SAMPLE MATERIEL RELEASE REQUEST

From: PM

To: Commander, MARCORSYSCOM

Via: Director (PA&E)

Subj: REQUEST FOR MATERIEL RELEASE FOR THE (identify system/modification)

Enclosure: (1) Supporting documentation

1. Request approval of the full (or conditional or training) release of (identify system/modification). The enclosure demonstrates that the requirements for materiel release have been met or mitigated and agreed to by (identify the customer).

Copy to:

CG MCCDC

COMMARCORLOGBASES

Commanders MARFORLANT, MARFORPAC, MARFORRES

Commanding Generals I MEF, II MEF, III MEF

Enclosure (1)

## CONDITIONAL RELEASE GET-WELL STATUS REPORT

1. Nomenclature/TAMCN/NSN	2. Type Report	3. Date
	Initial _____ Status _____	
4. Initial Fielding Date	5. T/E Fielded To	6. Qty Fielded
7. Condition	8. Get-Well Date	9. Remarks

## Instructions:

Block 1: Enter the nomenclature of the system and it's Table of Authorized Materiel Control Number

Block 2: Indicate whether this is the initial report or is reporting the status of a previously submitted report

Block 3: Enter the date of the report

Block 4: Indicate the date of initial fielding

Block 5: Indicate the T/E's which received the materiel during the initial fielding

Block 6: Indicate the quantities fielded to each of the T/Es listed in block 5

Block 7: Describe the condition(s) which caused the conditional release

Block 8: Provide the date for correction of the condition(s) described in block 7

Block 9: Include any clarifying remarks

Enclosure (2)



From: Commander, Marine Corps Systems Command  
To: Commander, *(appropriate MEF/MFR)*

Subj: MATERIEL FIELDING ANNOUNCEMENT (MFA) FOR THE *(identify the system)*

Ref: (a) Materiel Fielding Plan for the *(identify the system and the ULSS number and date)*

1. Purpose. This MFA provides specific fielding information and identifies specific responsibilities of the MARCORSYSCOM, the gaining command and the supporting establishment not previously identified in the reference.
2. Information. A fielding conference was held at *(identify location)* on *(date)* to discuss the procedures and requirements for fielding the *(identify the system)*. The Materiel Fielding Team (MFT) is scheduled to arrive at *(identify specific location)* on *(identify the specific dates)* to begin the fielding of the *(identify the system)*.
3. Type of Release. (Indicate whether the system has received a full, conditional or training release.)
4. Points of Contact.
  - a. MARCORSYSCOM
  - b. MARCORLOGBASES
  - c. MARFOR(LANT/PAC/RES as appropriate)
  - d. MCCDC
5. Schedule. *(Identify specific date and location for delivery of the system, specific dates for actions by the MFT, specific dates and locations for operator and maintainer training if conducted in conjunction with the materiel fielding, and any other dates and actions not specified in the ULSS)*
6. Responsibilities.
  - a. MARCORSYSCOM *(Identify specific actions to be taken and major services and functions to be performed which are not completely described in the ULSS)*
  - b. MARCORLOGBASES *(Identify specific actions to be taken and major services and functions to be performed which are not completely described in the ULSS)*

Enclosure (3)

c. MARFOR (LANT/PAC/RES as appropriate) *(Identify specific actions to be taken and major services and functions to be performed which are not completely described in the ULSS)*

d. (Other organizations as appropriate) *(Identify specific actions to be taken and major services and functions to be performed which are not completely described in the ULSS)*

7. Issues. *(Identify all open issues and the plans of action and milestones for correction. Highlight those issues which must be resolved prior to fielding and the point of contact responsible for the resolution.)*

Copy to:

(Appropriate force commander, division commanders, gaining units)

COMMARCORLOGBASES

CG MCCDC

Enclosure (3)

GAINING UNIT FIELDING EVALUATION REPORT				
SYSTEM NAME	SYSTEM MODEL NO	TAMCN	NSN	FIELDING DATE
GAINING UNIT T/E AND UIC (Typed name of Commander)		SIGNATURE		EVALUATION
MAILING ADDRESS		DSN NUMBER		
<p align="center"><b>PREPARATION INSTRUCTIONS</b></p> <p>1. Complete within 30 days of fielding/handoff date.</p> <p>2. Check the appropriate box Yes, No, and N/A. Include short narrative below or no separate sheet for each no answer.</p> <p>3. Provide copies:</p> <p style="margin-left: 40px;">a. COMMARCORSYSCOM, 2033 BARNETT AVE., SUITE 315, QUANTICO VA 22134-5010</p> <p style="margin-left: 40px;">COMMARCORLOGBASES, 814 Radford Blvd., ALBANY GA 31704-1128</p> <p style="margin-left: 40px;">DC/S I&amp;L, 3033 Wilson Blvd., ARLINGTON VA 22201</p> <p style="margin-left: 40px;">b. Your chain of command when required.</p>				
<b>PART I - PRE-FIELDING COORDINATION</b>				
ITEM			YES	NO
1. Was the ULSS provided 3 months prior to the pre-fielding conference?				
2. Was your organization involved in the materiel release review?				
3. Was a pre-fielding conference conducted? If yes, when?				
4. Was a fielding conference conducted? If yes, when?				
5. Was the fielding delayed for any reason? If yes, explain.				
COMMENTS FOR CLARIFICATION AND "NO" ANSWERS				

Enclosure (4)

<b>PART II - FIELDING OPERATIONS AND LOGISTIC SUPPORT</b>
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ITEM	YES	NO	N/A
6. Was an inventory and hand-off accomplished? When?			
7. Supply Support Were the following items provided as agreed on?			
a. All WS/E?			
b. All components?			
c. All spare/repair parts (including supply system responsibility and collateral materiel)?			
d. All tools, test equipment, and general support equipment?			
8. Transportation and Handling a. Did the WS/E arrive in acceptable condition?			
b. Was the WS/E deprocessed, accounted for, and secured properly?			
c. Were needed materiel handling resources and facilities available for receipt, deprocessing, and hand-off?			
9. Technical Data a. Were prescribed training instructions and manuals available prior to or concurrent with fielding?			
b. Were TMs, supply bulletins, instructions, and warranty information available for each echelon of support?			
10. Facilities a. Were adequate facilities available for receipt, inventory, operation and hand-off of all materiel?			
b. Were facilities adequate in terms of size, type, security, access, and quality?			
11. Training and Training Devices and Materiels a. Was adequate training provided prior to fielding?			
b. Was training conducted as stated in the ULSS?			
c. Were training aids for sustainment training available prior to or concurrent with fielding?			
12. Computer Resources and Support a. Was software provided to support the hand-off and fielding?			
b. Was the computer interface with the fielding operation adequate?			
COMMENTS FOR CLARIFICATION AND "NO" ANSWERS			

Enclosure (4)

<b>PART III - FIELDING OPERATIONS AND LOGISTIC SUPPORT</b>
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ITEM	YES	NO	N/A
13. Other Logistic Support			
a. Was needed engineering/technical data and expertise available to support the fielding?			
b. Was any other logistic support needed for the fielding which was not planned for and provided?			
c. Was any expected logistic support provided which improved the fielding process? If so, please describe.			
COMMENTS FOR CLARIFICATION, "NO" ANSWERS AND #13c			